

Construction



NOVEMBER 1950

Value of southern construction awards in the first ten months of this year is \$3,382,496,000, or more than five per cent more than the figure for the entire twelve months of last year. The comparable total for the ten-month period of 1949 was \$2,492,339,000.

The \$3,382,496,000 total includes \$1,005,750,000 for private building; \$728,261,000 for industrial construction; \$716,465,000 for public building; \$505,971,000 for highways and bridges, and \$426,049,000 for engineering type construction. All are substantially above the totals in their respective fields for the ten-month period of last year.

October awards in the sixteen states below the Mason and Dixon line amounted to \$317,904,000; this is a fifty-five per cent increase over the level for the tenth month of last year but a six per cent decline from the current year's September total.

The October total embraces \$115,854,000 for public building; \$71,948,000 for private building; \$57,418,000 for highways and bridges; \$43,669,000 for heavy engineering construction, and \$29,015,000 for industrial work.

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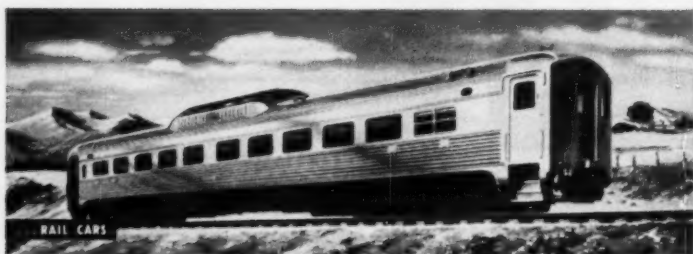
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HERE IT IS—the newest member of the General Motors Diesel family—the brawny 6-110 engine that develops 275 horsepower.

It is 50% more powerful than the famous 6-cylinder GM "71" engine that powers so many trucks, buses, boats, construction equipment and other mobile, portable and stationary units.

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per hour in just one minute and have a top speed of 83 mph with a full load.

Like all other GM Diesel engines the 6-110 is two-cycle—delivers power on every piston downstroke. This advanced design cuts down Diesel size without sacrificing ruggedness; it insures fuel economy, lower maintenance costs, exceptional dependability and long life.

The GM 6-110 engine provides Diesel power at its best for heavy-duty jobs—not only for rail cars but in the largest mountain-type trucks, huge rock crushers, deep-sea fishing and pleasure boats, big pumps and compressors, mining and oil field equipment. *It is an exceptionally compact Diesel for its horsepower—an engine that gives remarkably fine performance in minimum space.*

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"Your Key to Power Economy"

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Construction

NOVEMBER 1950

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SAMUEL A. LAUVER
Managing Editor

WM. E. McCORD
Advertising Manager

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Turner Company Builds Canco Container Plant

MARYLAND'S first paper milk container plant officially went into operation late last month when American Can Company dedicated its multi-million dollar layout at Halethorpe, a suburban community southwest of Baltimore, as part of its \$77,000,000 postwar construction and improvement program.

Located on a 43-acre site on the Washington-Baltimore highway, the plant will make containers at the rate of 250,000,000 a year in its vast manufacturing building and interconnected spaces for warehouse, trucking, paraffin storage and train loading purposes.

The factory building is 180 by 255 feet. It has a monitor-type roof over the major part, with structural steel trusses of 138-foot clear span and a 16-foot clear ceiling height below the trusses.

The warehouse, 280 by 230 feet, also is structural steel framed, with a clear ceiling below the steel beams of 18 feet. The trucking station is 115 by 72 feet, with a 20 by 70-foot wing for shipping offices. Dimensions of the paraffin building at 69 by 46 feet; train shed, 322 by 55 feet.

All the buildings are one story in height with steel framing, face brick walls and common brick back-up. Steel sash is installed. Robertson Q-panel aluminum siding is used around the monitor area. The concrete channel plank roofing is on steel purlins, which are generally seven feet eight inches on centers. Floors are heavy duty cement surface.

There is a separate boiler house 48 feet square and 33 feet high. This has a structural steel frame with three continuous bands of steel sash separated by sections of Robertson Q-panel siding laid with horizontal lines.

The new factory will employ 250 men and women when running at peak capacity, thus raising to nearly 1,350 the number of workers engaged by the company in the Baltimore area where two other plants make metal containers at the rate of one billion annually for the food and other packing industries. Combined payrolls of the operations approximate \$4,000,000 a year.

The new plant was dedicated October 26, local and state civic leaders starting the three production lines, followed by a luncheon at a local hotel, where the principal speaker was L. W. Graaskamp, vice president in charge of sales.

When originally announced, the plant was described as having approximately 150,000 feet of floor space, with provisions made in its design for future expansion when necessary. Turner Construction Co. of New York, carried out the construction. Twenty-seven such projects have been done by that contractor for American Can. An addition at Houston was finished sometime ago.

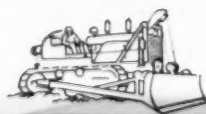
Two months before dedicating the Halethorpe plant, the company announced construction had been started on a new building adjacent to its existing Tampa, Florida, can factory. The new

(Continued on page 36)

CUSTOMERS'



INTERNATIONAL



CHOICE

The International TD-24 "Champion of Crawlers"

More than 100 International TD-24 diesel crawler tractors have already been delivered to customers by a single International Industrial Power Distributor. Similar strong demand for this new "Champion of Crawlers" all over the country—proves that the TD-24 is customer's choice—every time!

You earthmoving men who have chosen the TD-24 to increase your payload production have given the TD-24 its present place of prominence in the industry. You've proved, on your jobs, that there is nothing like the TD-24 for power and performance. You've found that this "Champion" pays for itself

quickly, and then gives you *extra earnings* for the rest of its rugged working life.

We are proud of this tractor—the TD-24—and of the acceptance you have given it. And we're proud of the superb distributor organization which has brought this mighty crawler to you—coast to coast.

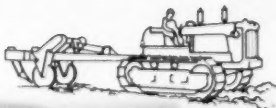
As more International distributors deliver their 100th TD-24 in the months ahead, hundreds more of you who need them will gain the benefits which the great work-capacity and payload production of this "Champion of Crawlers" provides.

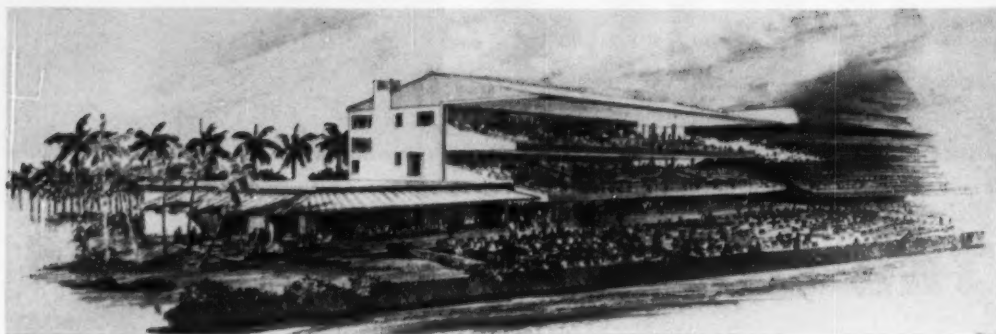
INTERNATIONAL
HARVESTER
COMPANY



CHICAGO 1,
ILLINOIS

INDUSTRIAL POWER





Above—\$1,500,000 clubhouse being erected at Gulfstream Race Track, Hallandale, Fla. To seat 3,500 spectators, the building was designed by Robert M. Little, of Miami, Caldwell-Scott Engineering & Construction Co., Inc., of Fort Lauderdale, Fla., is the contractor.

South's Contract Award Value Above Last Year

SOUTHERN construction contracts this year so far, with two months yet to go, are more than five per cent ahead of the value for the entire twelve months of 1949. The current ten-month total is \$3,382,496,000; the comparable figure last year at this time was \$2,492,339,000, or thirty-five per cent below the current valuation.

October awards in the sixteen states below the Mason and Dixon line amounted to \$317,904,000, this representing a six per cent decline from the value for the preceding month but was a fifty-five per cent rise over the level for the tenth month of last year. The October total is the sixth highest this year.

The total for the elapsed months of 1950 included \$1,005,750,000 for private building, \$728,261,000 for industrial construction, \$716,465,000 for public building, \$505,971,000 for highways and bridges and \$426,049,000 for engineering type construction. All are substantially in excess

of the aggregates for the first ten months of last year.

Private building, with its \$1,005,750,000 current total, is thirty-one per cent larger than its 1949 counterpart, and includes \$725,959,000 for residential work, including apartments and hotels; \$101,810,000 for assembly type buildings such as churches, theatres and auditoriums; \$92,280,000 for commercial buildings and \$85,701,000 for office buildings.

The ten-month residential construction total is fifty per cent above the \$483,199,000 figure for similar work in the comparable period of 1949. Assembly building, total \$101,810,000, is up about eight per cent. Office building construction is down about ten per cent. A seventeen per cent increase was registered in commercial building.

Public building shows a rise of about seventeen per cent. The \$716,465,000 current ten-month total embraces \$370,337,000

for government buildings as such and \$346,128,000 for school projects. Government building is six per cent ahead of such work in the comparable period of 1949. School construction is stronger by forty-six per cent.

Industrial construction shows an increase of about seventy-three per cent.

The \$426,049,000 for engineering type construction is forty per cent ahead of the value of such work in the first ten months of 1949. The total includes, \$205,386,000 for dams, drainage, earthwork and airports; \$118,508,000 for sewer and water work and \$102,155,000 for government electric projects. A fifty-two per cent increase is recorded in the dam group. Increases in the other two are twenty-one per cent and forty-two per cent, respectively.

Highway construction also shows a substantial increase. The \$505,971,000 total for the first ten months is almost twenty-four per cent above the \$408,117,000 for the comparable months of last year. Texas shows a total of \$71,462,000; Virginia, \$68,643,000; North Carolina, \$50,445,000. Eleven other southern states are above the ten million dollar mark.

The October total is the low point of a declining trend that started after the \$582,302,000 1950 peak registered in July. Subsequent valuations on southern construction have been \$361,424,000 in August; \$338,184,000 in September and the \$317,904,000 figure for October.

October's \$317,904,000 embraces \$115,854,000 for public building; \$71,948,000 for private building; \$57,418,000 for highways and bridges, \$43,669,000 for heavy engineering construction and the \$29,015,000 for industrial work. Public building and heavy work, also of public origin, are up; the other categories down, industrial construction, drastically so.

Public building in October rose twenty-one per cent in value. Its components were \$78,976,000, an eighty-three per cent increase when compared with government building work in the preceding month, and \$36,878,000 for school con-

SOUTH'S CONSTRUCTION BY TYPES

	October, 1950 Contracts Awarded	October, 1950 Contracts to be Awarded	Contracts Awarded First Ten Months 1950	Contracts Awarded First Ten Months 1949
PRIVATE BUILDING				
Assembly (Churches, Theatres, Auditoriums, Fraternal)	\$11,634,000	\$10,410,000	\$101,810,000	\$93,095,000
Commercial (Stores, Restaurants, Filling Stations, Garages)	5,997,000	7,385,000	92,280,000	78,857,000
Residential (Apartments, Hotels, Dwellings)	39,440,000	69,117,000	725,959,000	483,199,000
Office	15,457,000	26,710,000	85,701,000	96,189,000
	\$71,948,000	\$104,622,000	\$1,005,750,000	\$751,340,000
	\$29,015,000	\$90,878,000	\$728,261,000	\$419,198,000
INDUSTRIAL				
PUBLIC BUILDING				
City, County, State, Federal & Hospitals	\$78,976,000	\$39,945,000	\$370,337,000	\$346,864,000
Schools	\$36,878,000	\$4,477,000	\$346,128,000	\$263,031,000
	\$115,854,000	\$94,417,000	\$716,465,000	\$609,895,000
ENGINEERING				
Dams, Drainage, Earthwork, Airports	\$25,485,000	\$77,970,000	\$205,386,000	\$134,578,000
Federal, County, Municipal, Electric	3,697,000	4,127,000	102,155,000	71,888,000
Sewers and Waterworks	15,087,000	32,981,000	118,508,000	97,323,000
	\$43,669,000	\$115,078,000	\$426,049,000	\$303,789,000
	\$37,418,000	\$130,329,000	\$505,971,000	\$408,117,000
ROADS, STREETS AND BRIDGES				
TOTAL	\$317,904,000	\$535,324,000	\$3,382,496,000	\$2,492,339,000

struction, which showed a decrease of twenty-nine per cent.

Private building remained relatively stable, despite the uncertainty created by recent credit controls on residential projects and restrictions understood to be impending on amusement construction. The decline was but four per cent.

Largest element in the \$71,948,000 private building figure was the \$39,440,000, for residential construction, which showed a seventeen per cent negative reaction to the federal financial regulations, compared with the value for the previous month.

The balance of the private building included the \$15,457,000 for office buildings; \$11,054,000 for assembly buildings, and \$5,997,000 for commercial buildings. Office building is up almost six per cent. The assembly building value shows an increase of one hundred fifteen per cent, while commercial building decreased twenty per cent.

Highway and bridge contract values also remained substantially the same in October. The total of \$57,418,000 which does not include some of the bids opened late in the month for which reports have not yet been received, is but two per cent under the September total of \$58,686,000.

Engineering, or heavy construction rose thirty-five per cent. Value of dams, drainage, earth and airport work was up seventy-six per cent to \$25,485,000. Sewer and water work also made a substantial gain. The \$15,087,000 value shows a rise of thirty-one per cent. Government electric work, total \$3,097,000, dropped fifty per cent.

Privately financed industrial projects were at the second lowest monthly total for the year. The \$29,015,000 represented a decline of about sixty-two per cent from the value in September. The \$35,000,000 expansion of the naval ammunition depot at Camden, Ark. and the \$3,000,000 Arnold engineering development at Tullahoma, Tenn. are not included in the private industrial total.

Although business activity in general is reported continuing strong, the construction industry is due for a setback in one field, at least, now that bans have been placed on erection of amusement buildings. This was announced as this issue went to press. Not only will dance halls, bowling alley work and horse and dog racing projects be restricted, but so also will be government recreational structures.

Most home builders regard the recent financial controls imposed upon home purchase as a blow at themselves as well as other industries in such fields as refrigerators, furniture, radio and television sets, electrical appliances and other home equipment. Some builders are curtailing their programs. One, however, believes the move will help bring order to what he called a chaotic condition, including black markets in some materials which worked the hardship of higher costs on the ultimate purchaser.

The Federal Reserve Bank in imposing Regulation X has because of it raised the required down payments and shortened the time of payment. The Federal Housing Administration only insures the

SOUTH'S CONSTRUCTION BY STATES

	October, 1950	Contracts Awarded First Ten Months 1950	Contracts Awarded First Ten Months 1949
	Contracts Awarded	Contracts to be Awarded	
Alabama	\$8,782,000	\$27,643,000	\$114,335,000
Arkansas	\$5,385,000	3,710,000	159,861,000
District of Columbia	8,008,000	17,587,000	38,235,000
Florida	16,324,000	45,713,000	300,676,000
Georgia	22,103,000	38,645,000	122,001,000
Kentucky	3,397,000	9,349,000	90,351,000
Louisiana	20,077,000	14,780,000	287,352,000
Maryland	20,822,000	37,568,000	283,877,000
Mississippi	11,597,000	16,565,000	109,751,000
Missouri	13,942,000	39,934,000	214,337,000
North Carolina	19,710,000	17,430,000	383,015,000
Oklahoma	9,859,000	75,990,000	116,949,000
South Carolina	3,679,000	13,690,000	104,023,000
Tennessee	22,903,000	17,558,000	185,424,000
Texas	73,019,000	131,034,000	728,424,000
Virginia	18,035,000	33,277,000	209,942,000
West Virginia	1,262,000	9,351,000	21,944,000
TOTAL	\$517,904,000	\$535,324,000	\$3,382,496,000
			\$2,492,339,000

mortgages, it does not lend money. The purchaser pays the premium on the insurance.

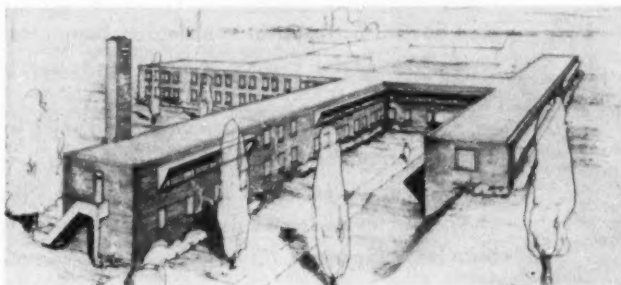
The National Association of Home Builders has already called for relaxation of imposing greater responsibility on the home purchaser, labeling the new credit curbs as "a return to 'horse and buggy' financing." The organization, its president said, has pledged its support in an anti-inflation fight and its members had begun to curtail production in line

with the demands of an emergency economy.

Raymond M. Foley, administrator of the Housing and Home Finance Agency, declared the cutback in housing production is an unwelcome but necessary step, which will result in not more than 800,000 to 850,000 housing starts next year.

The credit restrictions were instituted in the government-aided programs, he said, "to support as much homebuilding

(Continued on page 54)



Above—J. M. Thompson & Co., of Raleigh, N. C., are contractors for the addition to the Wake County Sanatorium, Raleigh, N. C. Holloway, Weber and Reeves, also of Raleigh, are the architects. Plumbing and heating contractor is J. R. Bagwell Co.; electrical contractor, Mangum Electric Co.

Below—Headquarters building under construction at Jefferson City, Tenn., for Appalachian Electric Cooperative. Binculli, Palm & Purnell, of Chattanooga, are the architects; C. & S. Construction Co., of Morristown, the contractors on a base bid of \$116,470.





Unexpected Quarter

Additional ammunition in the fight being waged by the construction industry for adequate roads in all sections of the country came from an unexpected quarter recently—the sports pages of the daily press.

Commenting on the unconscionable traffic jam which snarled the approaches to the Maryland-Navy football game at College Park, which is on Route 1 northeast of Washington, Burton Hawkins, sports columnist for the Washington Evening Star had this to say:

"The stadium hasn't been constructed which will contain the fans who desire to view top-level football in this area. Maryland has a modern stadium but ancient roads lead to it and it will soon become a question of whether the customers' love for football will overcome a general distaste for traffic snarls.

"Maryland has the first phase of a 92,000-seat structure, but handling a crowd of 43,836 Saturday was similar to pouring putty through a funnel. Despite the efforts of police, traffic clogged coming and going."

To this we offer the following addenda. The "efforts of police" included the very latest traffic control equipment—two way radios, an observation helicopter and the like. Hundreds of people caught in the mess ahead missed the second-half kickoff as well as the initial one.

Suppose the traffic movement had been a military one, instead of a group of pleasure-bent civilians?

A Review of Our Highway Policies

by

Thomas H. MacDonald

Commissioner of Public Roads

A CHARACTERISTIC of our times is that the individual or group that shows capacity to carry heavy responsibilities is called upon to bear a constantly increasing load. So it is that now in the later months of a year in which the operations of the highway departments, State and Federal, are at a peak, these departments must accept the added responsibility of determining a course, constructively and realistically designed, to meet the difficult problems of the future. Of these there is one problem more significant than any other—uncertainty. Perhaps some will urge this is a quality inherent in all problems—the factor which is the most potent creator of problems. Even so, the precise cataloging is unimportant. What is important is the degree by which uncertainty can be reduced by the intelligent analysis of acquired facts. Without facts uncertainty remains.

In the protracted hearings before the Highways Committees of Congress, the factual evidence presented by those representing all major phases of highway transport was impressive in scope and substance. On this evidence, new legislation and authorized funds to continue the Federal-aid highway program received the support of the Congress. The attention of the Congress was given this legislation and action was taken upon it at a time when momentous matters of national and international significance were pressing for time and resolution. Two conclusions are inescapable: first, the highway improvement program has been properly placed with the other national "musts," and second, recognition of this rank of essential has been won by the presentation of factual evidence of the relation of highway transport to the whole gamut of our social and economic activities under every condition—peace or war. Historically, nothing has so contributed to the stability of the road improvement program and assured the authorizing State and Federal legislation as have the facts gathered, analyzed and interpreted by State and Federal highway units assigned to this work.

It may be accepted as a basic premise that in every legislative body, State or Federal, the balance of power tends to action in the public interest. The sine qua non, when positive action is required, is the clear presentation of convincing factual evidence of the public interest. Negative action by a legislative body—the General Assembly of a State or the Congress of the United States—does not imply a disregard of the public interest; it does prove usually there has been an inadequate exposition or downright misrepresentation of just what constitutes the public interest.

The failure of the State Legislatures or of the United States Congress to provide legislation when needed to serve the public is generally an indictment of those whose duty it is to place recommenda-

tions before the Legislatures or the Congress, properly supported by facts. In highway matters this means us—the Bureau of Public Roads, the State highway departments, the local highway officials of county and city.

It is inherent in our legislative process that positive action is based upon understanding and confidence that the recommended laws and requested support funds are the logical approach to sound objectives. The only sure road to understanding and confidence is a painstaking gathering of facts and their presentation with complete integrity. Many times the facts may call for modifications in preconceived recommendations. If so, well and good. The one thing that matters is that the facts be as complete as possible and that they be presented with high integrity. The same principles hold true if or when conditions impose a choice of alternates.

An acceptance of responsibility for the highway program requires us to look deeply into this problem of uncertainty as it affects our present operations and plans for the future.

New Conditions Require a New Approach

We cannot expect our course of highway administration to be spelled out in one, two, three order, thus removing responsibility from our own shoulders. Neither can we evade obligation by hiding our heads in the sand. Those in the highest positions of government have voiced principles which we must translate into action, each in his own field of influence and authority. The President, under date of July 21, 1950, requested all Government Departments to reexamine their programs, giving particular attention to the following:

"All civil public works, both direct Federal programs and grant-in-aid programs, should be screened with the objective, as far as practical, of deferring, curtailing, or slowing down those projects which do not directly contribute to defense or to civilian requirements essential in the changed international situation set forth in my message."

When this request was transmitted to the State highway departments, their response, with some few exceptions, reflected the fine quality of leadership of these departments. This is so true that the few, mostly outside the highway organizations themselves, who continue to demand sizable projects of little merit, stand out like the proverbial sore thumb. The review of proposed programs not yet under way indicated that a substantial per cent of the dollar volume of projects should be given a second scrutiny.

Speaking before the Association of Mail Advertisers in Chicago on September 27, Secretary Sawyer of our Department of Commerce, said:

"Regardless of the outcome of the battle in Korea, we have embarked upon a program which will put critical strains upon our domestic economy. Serious shortages, heavy taxes, and problems of inflation will tax our ingenuity and self-control and strength to the utmost; and this will go on for years."

"Those who think that the end of this present emergency will relieve us of concern for the future are victims of self-delusion; those who fear that the imposition of controls will rob us of our liberties are poor appraisers of the quality of liberty, or lack of it, which will be forced upon us if we fail in this undertaking of self-discipline."

What are the implications to us who are engaged in the building and maintenance of our highways?

The uncertainties inherent in forming a highway program that will best serve the interests of the nation now can be reduced to controllable dimensions through the proper analysis of the certainties, that is, the wealth of evidence we have and the facts we must currently secure.

Fallacy Inherent in the Term "New Roads"

What is the nature of our operations? Since the postwar Federal-aid highway program, beginning slowly late in 1945 to the end of 1949, 62,000 miles of all types had been built and put under service. This year, 1950, will add around 20,700 miles, a total during the postwar period of about 82,700 miles. In addition, the State and State-supervised improvements built with their own funds, will total about 97,000 miles by the end of the year. Standing alone, that is, without comparison with the far greater needs, it is a large total. We have made a serious mistake in the almost universal reference to this mileage as "new roads." It is little wonder that with this confusion the idea can arise that perhaps the rate of building roads might be tempered somewhat now.

What are the facts?

These large mileages are not "new roads." They are replacements of small fractions of our highway plant that have worn out to the extent they are not usable by the fantastically increased number and weights of the traffic. These rehabilitated sections had become economic liabilities. Most of them actually could not be maintained in safe condition even at costs leading direct to bankruptcy of road funds. Some sections have been replaced on new rights of way to obtain sufficient room for the improvement, but these are not "new roads" since they serve an existing and increasing traffic.

Our job is not the building of "new roads" but the keeping of a vast highway plant in operation. Traffic this year generated by a probable year-end total of 48.5 million vehicles, will be about 450 billion vehicle-miles, or 50 per cent above 1940, the last prewar year.

It is generally accepted that to reach the high goals of national strength and

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Before Southern Association of State Highway Officials, Louisville, Ky.

A Review of Our Highway Policies

(Continued from page 11)

international aid, we must raise production and keep our economy expanding.

The following is quoted from a recent paper by E. H. Holmes, Chief of the Highway Transport Research Branch of the Bureau:

"Traffic is a part of our economy and grows with it. The recent rapid increase in national income is reflected in a corresponding growth of traffic, and the current optimistic forecasts of our future economy presage a continued rapid increase in traffic volumes, barring only artificial restrictions of wartime necessity."

The experience of the past twenty years, broken only by wartime restrictions, supports the validity of the conclusion that we can expect a growth of total traffic in parallel with an increasing economy—until and unless wartime restrictions intervene.

Suppose then these restrictions come. Based on our prior experience, passenger car traffic will be somewhat reduced, not truck traffic. Truck traffic is certain to increase.

Increase in Trucking, 1940-49

The year 1940 was the last year of so-called "normal" economic activity prior to World War II. By 1941 the accelerated production of arms for other countries and our own expanding defense activity had added abnormally to our steadily increasing traffic volumes. Thus a comparison between 1940 and 1949 traffic reasonably reflects the effect on our highways of our expanding economy and changing transportation practices.

Between 1940 and 1949 the mileage volume of all traffic on rural roads increased 42 per cent. Although this is a striking increase, especially in view of the wartime restrictions on automobile production, the increase in truck-mileage has been still greater. Vehicle-mileage of all trucks and combinations on rural roads rose from 21.1 billion in 1940 to 33.8 billion in 1949, an increase of 60 per cent. A considerable part of this increase reflects the growth in over-the-road transportation in tractor semi-trailer and other combinations. Vehicle-mileage of these vehicles rose from 4.4 billion to 9.5 billion, an increase of 116 per cent.

With the increase in vehicle-mileage came heavier loading, with the result that ton-mileage on rural highways rose from 46.2 billion ton-miles to 89.1 billion from 1940 to 1949, an increase of 93 per cent. Here the effect of the combinations is still more significant than in their vehicle-mileage, for the load carried in combinations increased from 23.3 to 63.5 billion ton-miles, nearly tripling the 1940 figure.

This great increase in vehicle-mileage, especially in the combination vehicles, has had marked effect on the geometric design of many miles of State highways. Its effect is no less severe on the structural requirements, however, for the increase in ton-mileage has come to large extent through greater carried loads. The

average load of the single-unit truck has remained nearly static, increasing only from 2.13 to 2.29 tons from 1940 to 1949. Meanwhile the average carried load on combinations has increased from 7.41 to 10.19 tons. Of course within these averages are concealed a great range of loads, as shown by the many evidences of severe overloads in both classes of vehicles, loads definitely detrimental to the highway structure.

It is evident we can expect an increasing use of our highways by the types of traffic which are measured in ton-miles, resulting from our increased overall production activities. To carry this traffic we have inadequate highways. We need look only upon the authenticated deficiencies of our major highway system—the interstate system.

Deficiencies on the Interstate System

The report on Highway Needs for the National Defense, dated June 1949, prepared at the direction of Congress and with the cooperation of all State highway departments, revealed the extent of the deficiencies in the National System of Interstate Highways with respect to normal civilian needs as well as requirements of the national defense. On the basis of 1948 prices it was estimated that \$11,366,000,000 would be required to bring the entire 37,800-mile system up to standards desirable for 1948 traffic.

One of the most serious deficiencies both with respect to current civilian loads and possible military requirements is the condition of the bridges. Of the 12,048 bridges carrying the routes of the system, only 1,607 were of the H20-S16 design or rating. While 2,207 other bridges were only slightly deficient, being of H20 design, 8,234 bridges were definitely deficient in carrying capacity. Some of those adequate in structural strength were deficient in vertical or horizontal clearance.

The type and width of surface, gradient, curvature and sight distance, all are important in traffic capacity. In this report of 1949 the average age of all surfaces on rural sections of the system is 12 years, and many, of course, are much older. The roadways on which they are laid average 17 years in service. Thus the average mile has a surface designed in 1937 on alignment and gradient last improved in 1932, a most significant fact in view of the growth of traffic since those dates. It is estimated that by 1959, 18,220 miles in service in 1948 will wear out.

In rural areas, 9,520 miles of two-lane road existing in 1948 required widening to 24 feet to meet the accepted standard. Another 875 miles of two-lane road need conversion to four lanes, and 1,350 miles then surfaced with three or more lanes undivided, should be rebuilt as divided highways. Similar deficiencies existed in shoulder width, an element most important both in safety and capacity of the highway.

Curvature and gradient were in many cases in excess of desired standards. These features, important in themselves, have more significance in the utility of

the highway when singly or combined they reduce sight distance. Inadequate sight distance prevents satisfactory passing on 7,324 miles, reducing both safety and convenience of travel on nearly one-quarter of the rural mileage.

Many miles of the system rebuilt in recent years to equal or to approximate closely the desired standards serve as examples of the benefits we could receive were the entire system rebuilt now to these standards. In addition to the added comfort and convenience of travel and reduction in loss in traffic delays and wear and tear on vehicles, it is estimated that were the inadequate sections improved to adequate standards, more than 1,400 lives would be saved in one year through reduction in accidents.

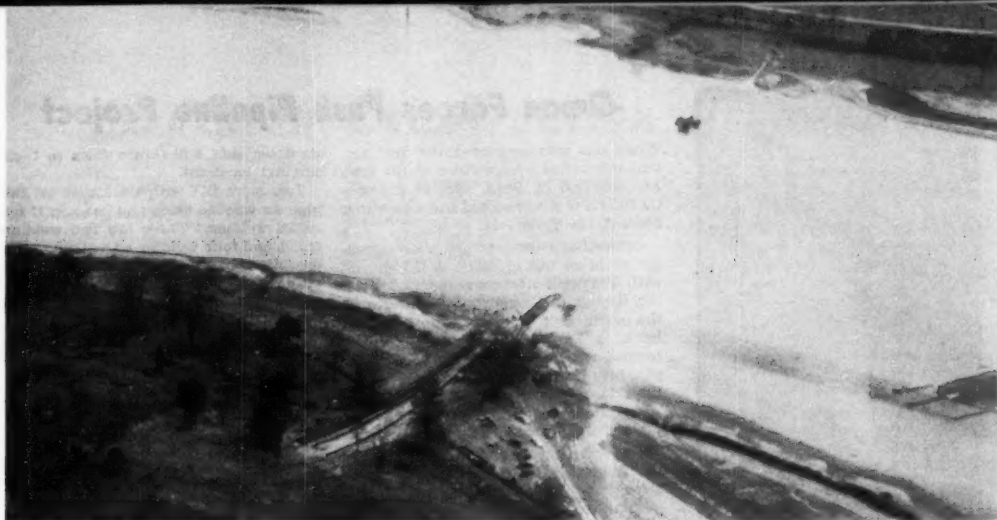
Highways Are an Operating Plant

It is surely unnecessary to labor this point. The evidence clearly establishes two governing conditions: First, the highway plant must be kept in efficient operation to serve our production economy, and second, the correction of known deficiencies in our top-flight highways is beyond our capacity of physical or financial resources to remedy quickly; i.e., we are forced to keep in operation an extensive plant subject to growing traffic, and only a continuous and consistent program of maintenance and replacements is possible. This means a balanced program of these two operations which should be based on a 10-year period. One year results in little improvement of an extensive road system. Every route or section of route, particularly of major highways, should be looked at from the angle of its potential performance over a 10-year period. Can it be maintained for 10 years within reasonable cost or not? If not, it becomes a candidate for reconstruction. Once it is a candidate for reconstruction, it must take its place in competition with all other projects in the same category, but further, it must compete for allocations of critical materials, if any, with all other demands.

It is too early to know what controls may be placed upon materials needed for highway construction. Under date of September 28 there was established in the Department of Commerce by order of Secretary Sawyer a National Production Authority. Among the functions delegated to this Authority are:

"(1) Determination of the requirements for materials and commodities needed for defense, civilian, foreign, and all other purposes; and (2) Formulation and execution of the policies and programs necessary for the fulfillment of such requirements."

The next action by the Secretary will be to designate claimant agencies to present requests to the Authority for allocation of materials if and when controls or priorities are established. It is expected the Bureau of Public Roads will be designated as a claimant to represent official highway requests before this Authority. . . .



Above—Aerial view of the 1,900-foot crossing of the Tennessee River, where a barge-mounted dragline is shown digging the river trench as 400-foot pipe sections are readied for the pull-in.

Oman Forces Push Pipeline Project

Pipeline construction is one of the finest examples of team operation—and cooperation—on the American construction scene. New equipment and new methods embodied in well coordinated teamwork set the stage for new production peaks.

Just such an operation is that of the Oman Construction Co., forces speeding 8,000 feet daily across Eastern Tennessee on the Oak Ridge-Knoxville-Athens section of a new East Tennessee Natural Gas Co. loop. This loop will continue

through Chattanooga and Tullahoma and on into Lobelville.

Oman also has the Tullahoma-Lobelville line with N. A. Saigh contracting the middle Athens-Chattanooga-Tullahoma section. The complete project calls for 325 pipeline miles, mostly 16-inch, of which Oman has 175 miles of mainline and about 75 miles of laterals. The eastern section of the Oman contract, upon which work is now progressing, includes 69 mainline miles and some laterals.

This stretch at the "Gateway to the

Smokies" offers a real challenge to men and machines. The profile varies from 700 to 2,500 feet above sea level. Rivers must be crossed. Roads must be trenched through or drilled under. Seventy-five per cent grades must be claimed. Swampy sections must be spanned. Tough, rocky areas must be drilled, blasted, and ditched.

The 1,900-foot crossing of the Tennessee River took place well in advance of pioneering operations. When normal pipe-laying reached the north bank, river pipe was already laid, backfilled, and ready for tie-in. Here's the way the river crossing was effected:

Fifty-two sections of 16-inch river pipe were positioned on the north bank for welding into lengths of approximately 400 feet. The pipe, of ½-inch wall thickness, was specially conditioned for its watery rest. It first received conventional cleaning and priming; then two coats of enamel dope, two coats of felt wrapping, and a ½-inch asphalt-impregnated, wire-formed felt lagging. Cast iron river weights were clamped on at about 35-foot intervals. There was no need for bending because of the relatively small pipe diameter and the river's gentle cross sectional slope.

Meanwhile, work was proceeding on the cross-channel pipeline trench. A barge-mounted Link-Belt Model 85 Speeder was the center of operations. Both barge and dragline are powered by Caterpillar D13000 Engines.

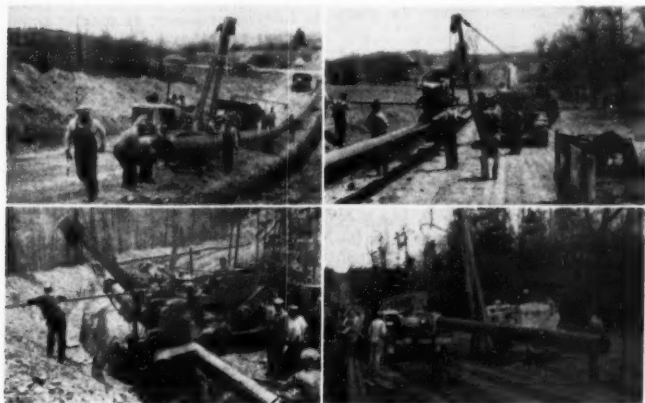
The excavator easily dug a four-foot ditch along both sloping, underwater banks. However, the center section of 650-foot length and 30-foot depth provided a knottier problem. Packed mud and rock limited the dragline's effectiveness in this area.

However, a two-foot trench was dug. Twenty-five pound rolls of 80 per cent high velocity river dynamite were tied to a 1½-inch cable and winched into the shallow river ditch. Next, a diver checked the underwater charge—10,000 pounds in all.

At the cry, "Fire in the hole!" a gigantic water wall shot 200 feet into the air,

(Continued on page 14)

Below—Upper left—A GMC truck, Lincoln welders and a D7 tractor team up to apply the stringer bead, the first of four welding operations on pipeline project between Oak Ridge and Athens, Tenn. The pipe is 22 inches in diameter. Upper right—A Caterpillar D8 cradles pipe for an M. J. Crose cleaner and primer powered by an International U4 engine. Lower left—An M. J. Crose doping and wrapping machine prepares pipe for lowering-in on this loop of the East Tennessee Natural Gas Company's project. The bagging was placed in the trench in billy stretches to prevent dirt washing during rainy weather. Lower right—A Coody Cinch bender makes a "stretch" bend in the 16-inch spiral bend pipe as a Caterpillar D7 hangs on.



Oman Forces Push Pipeline Project



Above—Top—One of three Caterpillar tractors which cradle pipe during doping and lowering-in operations on pipeline between Oak Ridge and Athens, Tenn. **Middle—**Workmen tie 25-pound rolls of high velocity river dynamite to a one and one-half inch cable in preparation for deepening the Tennessee River trench.

(Continued from page 13)

seemingly suspended, and then boiled slowly down to the river. A quick drag-line trip dredged out the loose material in the now deepened channel. Atlas Powder's George Erickson supervised the river shooting.

Next, the first 400-foot pipe section was bullheaded and winched into the river.

When this was completed, the next section was rolled over, welded to the first, and winched in. Soon, ends of the connected river pipe awaited tie-in on either bank of the Tennessee.

Caterpillar diesel tractors proved versatile tools on this crossing. A D8 and D7 with Trackson sidebooms manned welding, doping, and wrapping procedures on the north bank. Meanwhile, on the south bank, a D7 with Hyster D7N winch teamed with a White truck to pull the pipe into its river ditch. Assistance from the sideboom tractors in lifting, jiggling, and pushing the pipe made the winching job easier, surer, and faster.

The main pipeline spread approached the Tennessee River from the north. The river crossing was finished when the pioneering crew had pushed to a point just three miles distant—an example of perfect timing. Operations from pioneering to clean-up extend over a 10-mile length.

Three Caterpillar D8 Tractors with 88 Dozers perform the pioneering chores—including clearing and smoothing the 50-foot right of way for the oncoming ditching operation.

Because of the varying nature of the terrain, the ditching gang includes not only the ditcher itself, but also eight helping machines.

Where possible, a Caterpillar D8800-powered Cleveland 320 ditcher cuts out a 28 by 72-inch trench. Two Link-Belt LS-71s and two Lorain L-41s take over on extreme hills, in rocky going, in swampy clay beds, and in widening sidebends. All four three-quarter-yard backhoes have Caterpillar D318 Engines.

These machines also enlarge the trench to a 6 by 6-foot size about 50 feet on either side of main road crossings. This enlargement provides access for the drilling machine and extra room for 46-inch under-road casing that surrounds and protects the main pipe string.

In addition, the ditching gang includes a Gardner-Denver twin drill and 500-foot compressor for drilling much encountered solid rock. A Caterpillar D13000 diesel powers the compressor; a D5 sideboom tractor swings the drill; a D8 towcat winches the compressor in steep going.

Superintendent Richardson has added a trouble-saving wrinkle where ditches follow an uphill course. In these locations, bagging is laid in the ditch to prevent trench-clogging dirt washaways.

Oman Construction Co. does its own pipe stringing on this job. Each of five International 130 Series trucks carries 12 50-foot joints. A Caterpillar D6 sideboom tractor unloads one truck in about 18 minutes. A D8 towcat holds or pulls the trucks in steep grade country. When higher stringing production is needed, a "Cat"-powered Lorain L-41 crane helps out.

The Coody Clinch bender moves about 600 feet at a time. Two Caterpillar D7 tractors with sidebooms whisk 50-foot pipe sections to the bender from 300 feet,

on either side, and return them to their original locations.

Two more D7s with sidebooms set the pipe on wooden skids and position it for initial welding. There are two welding crews and four welding operations; each operation being a complete 360-degree bead. No tack welds are employed.

The first crew applies a stringer bead and a hot pass bead. Equipment includes a GMC truck with two GM-powered 300 ampere Lincoln welders. The second crew adds filler and finish beads. Here, four Hercules-powered 200 ampere welders do the job.

Eight men handle the arcs; two work each bead, on opposite sides of the pipe. Each welds 180 degrees (his own half) and stays one joint separated from his welding mate.

Operating about a mile in advance of the main dope gang is an M. J. Crose cleaner and primer. This machine is powered by an International U4 gasoline engine. A D8 with sideboom cradles pipe during this process.

The remainder of the pipe gang includes a Littleford 20-barrel dope pot, a Wisconsin-powered M. J. Crose doping and wrapping machine, three sideboom D8 tractors and a Sterns-Holiday detecting jeep. Doping and lowering-in are one operation here; the D8s lower pipe into the trench as quickly as it is wrapped.

Pipelining on this part of Oman's contract is complicated by dozens of minor road crossings. A special tie-in crew is maintained to speed overall production and insure fast repair and reusability of roads crossed. A "Cat"-powered Lorain L-41 clamshell, two D7s with sidebooms, and a Ford-truck-mounted 200 ampere Lincoln welder make up this outfit.

Two Caterpillar D8 dozers perform the backfilling function. A Caterpillar No. 12 grader cleans and grades the right of way in preparation for resodding. A D5 Traxcavator assists in material spotting and cleanup on steep grades and rocky terrain.

Over the complete sweep of pipelining operations, the onlooker notices an emphasis on Caterpillar equipment: on tractors, in excavator and ditching power, in compressor power, in marine power. Scope is such that a Caterpillar service truck has been permanently assigned to the line.

Superintendent Harvey Richardson calls this standardized teamwork the most important factor behind the 8,000-foot-daily progress. He calls this job "the best one I've worked in over 25 years of pipelining!" Other personnel of the Oman forces are: T. J. Hopkins, office manager; Harold Cook, spread man; Buck Flanagan, ditching; R. B. Compton, right-of-way; Dan Foster, bending; C. C. Gayhart, pipe gang; Joe Alexander, dope gang and lowering-in; Joe Emory, tie-in, and Sonny Biller, back-fill and clean-up supervisors. The latter also is spread man for the 3, 4 and 6-inch laterals. There are 251 men working on the section—10 hours daily, seven days a week.

Southern Construction Projects

ALABAMA

ANNISTON—Hamilton & Co. received low bid from Dethlefs and Hannon, for alterations to store, \$190,000.

ANNISTON—Alabama Gas Co. received low bid from Dethlefs & Hannon, Anniston, \$35,854 for alterations and repairs.

ATMORE—Fair Hosiery Co., Reading, Pa., plans \$250,000 lingerie plant.

AUBURN—Alabama Polytechnic Institute received low bid from A. Berney Jones, Montgomery, for food service building, \$65,000.

AUBURN—Lee County Board of Education, Opelika, let contract to A. Berney Jones, Montgomery, \$20,275 for addition to gymnasium and high school.

BIRMINGHAM—State Highway Department, Montgomery, let contract to W. C. Howton Co., \$564,550, for underpass.

BIRMINGHAM—Southern States Iron Roofing Co. let contract to Brice Building Co. for office and warehouse, \$275,000.

BIRMINGHAM—W. P. Ballard & Co., Inc. let contract to J. H. Holley for warehouse and office, \$97,469.

BIRMINGHAM—Hood McPherson Furniture Co. let contract to C. F. Hoods for warehouse, \$97,954.

BIRMINGHAM—Sloss Sheffield Steel & Iron Co. let contract to Perusini Construction Co., \$37,365 for research laboratory building.

BIRMINGHAM—City Board of Education let contract to Jack A. Roberts, \$178,117 for Tuggle School.

BIRMINGHAM—City Board of Education let contract to Jack A. Roberts, \$157,889 for addition to Parker High School.

BIRMINGHAM—City Board of Education let contract to Wilborn Construction Co., \$80,390 for additions to Gate City School.

BIRMINGHAM—W. S. Shubid plans 10-story doctors office building, \$1,000,000.

BIRMINGHAM—Birmingham Water Works Co. let contract to Rust Engineering Co., \$127,380 for concrete filters.

BIRMINGHAM—Young Men's Christian Association received low bid from Perusini Construction Co., \$128,900 for YMCA building.

BIRMINGHAM—Pan-Am Southern Corp. let contract to Rives Construction Co., Birmingham, for 3 service stations, \$52,500.

BIRMINGHAM—Cosby Hodges Mink Co. received low bid from Brice Building Co., \$80,977 for addition to warehouse.

BESSEMER—Harbison Walker Refractories Co. let contract to Sullivan, Long & Haskins, \$12,000 for comfort building.

CHILDERSBURG—City Board of Education plans addition to high school, \$70,000.

CLANTON—Gas & Waterworks Board received low bid from Holt and Thomason, Montgomery, \$175,268 for natural gas system.

GADSDEN—Jessie B. Holloway let contract to Stickeny Construction Co., \$62,000 for remodeling store.

GANTT—Alabama Electric Cooperative, Inc. plans \$3,600,000, 15,000 kilowatt generating plant.

GREENVILLE—Greenville Baptist Church received low bid from Bell and Williams, Montgomery, \$141,347 for auditorium.

IRONDALE—Southern Railway System plans yard, \$9,000,000.

JACKSON—Fair Hosiery Co., Reading, Pa., plans expansion, \$300,000.

MOBILE—E. V. Butler, Memphis, Tenn., and Jackson Davis and Thomas B. Allen of Matthews, Mo., plan \$1,400,000 grain elevator at Alabama State Docks, Alabama State Docks plan \$600,000 dredging and for wharves.

MOBILE—Mobile County Board of Education received low bid from E. F. Stuart Bay Minette, \$153,400 for gymnasium-auditorium for Central High School.

MOBILE—Mobile County Board of Education let contract to Bernard and Byrd, \$248,822 for pumping station building, division D-1, Big Creek Water Supply Project.

MOBILE—Mobile County Board of Education let contract to E. F. Stuart, Bay Minette, for gymnasium-auditorium for Central High School, \$153,400.

MONTGOMERY—City Waterworks Department plans \$1,500,000 expansion program to be completed by the end of 1951.

MONTGOMERY—State Highway Department received low bids for projects in following counties:

DeKalb—Prof. SACP-115-B, 10,473 mi. grad., drain, and temporary surf.; Floyd S. Milford, Birmingham, \$90,618.

Lamar—SACP-376-A, 6,301 mi. grad., drain, and double surf. treat.; McKee Construction Co., Jackson, \$143,756.

Clay—SACP-469-A, 3,826 mi. base and single surf. treat.; J. B. Maynard, Alexandria City, \$29,151.

Fuseloss—S-549-B, 13,604 mi. base and bitum. treat.; Georgia-Alabama Road Construction Co., Birmingham, \$123,018.

Cullman and Morgan—S-675-B, 12,349 mi. grad., drain, and double surf. treat.; Clyde O. Mitchell, Birmingham, \$193,841.

DeKalb—S-676-B, 9,299 mi. base and double surf. treat.; Georgia-Alabama Road Construction Co., \$77,253.

Houston—SACP-783-C, 7131 & 7153-A, 13,551 mi. base and bitum. treat. on 3 county roads; B. F. Williams Construction Co., Ozark, \$68,487.

Geneva—SACP-7122-A&B, 6,109 mi. grad., drain, and single surf. treat.; Joe F. Walters, Troy, \$75,742.

Geneva—SACP-7123-A&B, 6,019 mi. grad., drain, and single surf. treat.; J. S. Walton & Co., Mobile, \$61,883.

Jefferson—SACP-240-B, 0.997 mi. approaches to bridge on Coaldale-Trafalgar Rd.; A. L. Crow Construction Co., Birmingham, \$54,817.

Madison—SACP-1100-A, 0.063 mi. bridge over Flint River; W. A. McWaters, \$29,781.

Geneva—SACP-7151-B & 7163-B, 0.037 mi. bridge and culverts; J. L. Weed, Arlton, \$30,622.

Madison—Prof. F-A-S-462(1), 0.192 mi. bridge over Flint River east of Whitesburg; W. A. McWaters, \$132,950.

Macon—Prof. F-A-S-263(2) & 449(1), 9.457 mi. bitum. treat. and plant mix; Vandigriff Construction Co., \$345,952.

Lamar—F-A-S-273(3) & S-273(4), 8.435 mi. grad. and drain; Clyde O. Mitchell, \$85,971.

Cullman and Morgan—F-A-S-288(4), 15.293 mi. grad., drain, and bridges; W. A. McWaters, \$223,870.

Madison—F-A-S-411(1), Part 1, 9.612 mi. single surf. treat.; Reynolds & Shaw, Clilo, \$21,549.

Clay—F-A-S-467(1), 5.135 mi. base and single surf. treat.; J. B. Maynard, Alexandria City, \$37,738.

Choctaw—S-718, 717.1440 mi. bitum. treat.; E. J. Cobb Co., Montgomery, \$37,230.

Hale—15.302 mi. base and bitum. treat.; A. L. Crow Construction Co., Birmingham, \$132,563.

Limestone—5.924 mi. base and bitum. treat.; Dozier Brothers, Mt. Meigs, \$57,468.

Greene—2.835 mi. base and double surf. treat.; Dozier Brothers, \$27,851.

Marion—Cobb Construction Co., \$83,438.

Tallapoosa—3.382 mi. base single surf. treat.; J. B. Maynard, Alexander City, \$24,027.

Tallapoosa—4.975 mi. base and bitum. treat.; J. B. Maynard, \$51,903.

NORTH BIRMINGHAM—Sloss-Sheffield Steel & Iron Co. plans battery of 30 new coke ovens, \$2,000,000.

OPLEKA—City received low bid from Connor Brothers, Tuskegee, \$203,050 for city hall station.

OPLEKA—City received low bid from Ford Building & Supply Co., Selma, \$197,756 for recreation building.

OPLEKA—City received low bid from Connor Brothers, Tuskegee at \$92,742 for fire station.

OZARK—U. S. Engineer Office, Mobile, let contract to Cowan Lumber & Planing Mill Co., Nashville, Tenn., \$303,170 for repair and painting buildings, Camp Rucker.

SELMA—Independent Lock Co., Fitchburg, Mass., selected site for \$1,000,000 branch plant.

SPRINGVILLE—St. Clair County Board of Education received low bid from Bell and William, Montgomery, \$60,737 for addition to existing high school.

TUSCALOOSA—University of Alabama let contract to Batson-Cook Co., West Point, Ga., \$311,983 for addition to commerce building.

ARKANSAS

ARKANSAS—Corps of Engineers, Memphis, Tenn., received low bid from Pioneer Contracting Company, Inc., Memphis, \$26,630, for levee and bridge constructions in St. Francis drainage district of Clay and Green counties, Arkansas-St. Francis basin project.

CADEN—Winston Brothers Co., C. F. Haglin & Sons, Inc., Minneapolis, Minn.; Missouri Valley Construction Co., Leavenworth, Kans., and Sollett Construction Co., South Bend, Ind., have contract jointly for \$35,000,000 expansion of Naval Ammunition Depot which will make rockets for Armed Services.

FAYETTEVILLE—Fayetteville Independent School District No. 1 plans high school, \$830,000.

FORT SMITH—St. Edwards Mercy Hospital received low bid from Harnon Construction Co., Little Rock, \$1,260,000 for alterations and additions.

HARRISON—Public Buildings Service, General Services Administration, let contract to R. A. Jensen, Mobile, Ala., \$138,400 for extension to mailing vestibule, etc., Post Office and Court House.

HOT SPRINGS—Leo N. Levi Memorial Hospital plans new laboratory equipment and alterations to hospital, \$100,000.

JONESBORO—Board of Education let contract to L. & M. Construction Co., Memphis, Tenn., \$158,851, for Booker T. Washington School.

LITTLE ROCK—Little Rock Housing Authority let contract to Farnsworth and Chambers Co., Houston, Texas, \$3,192,257 for 400-unit public housing project.

LITTLE ROCK—State Board of Education plans school construction program for next year, \$9,000,000.

NEWPORT—Victor Metal Products Corp. let contract to Peterson, Garbi & Joseph, North Little Rock, \$386,485 for industrial building.

LITTLE ROCK—State Highway Commission received low bid for project in following county:

Ashley—Fed. Aid Proj. Job C-21, Portland-Checot County Line Road, Graves Bros., Pine Bluff, Ark., \$31,421.

NORTH LITTLE ROCK—Arkansas Farmers Association, Board of Directors, authorized \$45,000 office building.

NORTH LITTLE ROCK—555 Inc. let contract to Peterson, Garbi & Joseph, for 400,000 warehouse.

OSCEOLA—Crompton Co., Waynesboro, Va., plans \$2,000,000 textile finishing plant.

PINE BLUFF—Ebasco Services, Inc., New York City, has contract and work under way on \$1,000,000, 8-story headquarters building for Arkansas Power & Light Co.

ROGERS—Harris Baking Co. acquired Commercial-Potter Hotel property as part of \$200,000 expansion program.

TEXARKANA—Corps of Engineers, New Orleans, La., received low bid from Ray S. Burt, Crystal Springs, Miss., \$42,772, for levee embankment on Red River.

DISTRICT OF COLUMBIA

BLUE PLAINS—District Commissioners received low bid from Morae Boulger Destructor Co., New York City, \$711,446, for sludge drying and incinerator plant.

WASHINGTON—Board of Education plans following buildings: Hunter Hill Elementary School, \$328,000; Coolidge Senior High School, \$400,000; Davis Elementary School, \$116,100; Eliot Junior High School, \$375,000; Keene Elementary School, \$254,100; elementary school in vicinity of 30th & Barnard Sts., SE, \$300,000; Randle Highland Elementary School, \$250,000; Armstrong Senior High School, \$500,000; Browne Junior High School, \$248,000; Dunbar Senior High School, \$300,000; Francis Junior High School, \$139,000; Payne Elementary School, \$250,000; Douglass Junior High School, \$130,000; Richardson Elementary School, \$170,000; Spingarn Senior High School, \$660,000; Syphax Elementary School, \$234,000; Terrell Junior High School, \$817,000; and Turner Elementary School, \$245,000.

WASHINGTON—General Services Administration, Public Buildings Service, let contract to George Hyman Construction Co., \$1,935,979, for American Red Cross District of Columbia Chapter Building, Project No. 49-122.

WASHINGTON—Corps of Engineers plans alterations to Bldg. No. 36 to provide industrial facilities, \$100,000.

WASHINGTON—District Commissioners approved application for a \$175,000 Federal loan for slum-clearance project.

WASHINGTON—Ring Engineering Co., Inc., has contract for \$5,000,000 apartment house at 1500 Massachusetts Ave.

WASHINGTON—Ackley, Bradley, Patterson & Burgener, Architects-Engineers, plan for swimming pools for two schools, \$1,000,000.

WASHINGTON—District Division of Sanitation requested \$1,570,000 as part of its 1951-52 budget to build new trash-burning incinerator.

WASHINGTON—Water Division District and Washington Aqueduct plans \$3,936,000 long range program to expand the city's water supply and distribution systems.

WASHINGTON—Sewer Division District plans \$8,311,270 budget for 1951-52 for additions.

(Continued on page 16)

Southern Construction Projects

DISTRICT OF COLUMBIA

(Continued from page 15)

tional storm water sewers

WASHINGTON—Maryland-National Capital Park and Planning Commission said \$300,000 bond issue to Kinder, Peabody & Co., New York, for Montgomery County's share of land purchases for proposed George Washington Memorial Parkway.

FLORIDA

COCOA—Corps of Engineers, Jacksonville District, Jacksonville, received low bid from Lawrence C. Pearce Co., Jacksonville, \$523,118 for 4 technical and 3 utility buildings, Long Range Proving Ground Division.

DADE COUNTY—Enid Corp. let contract to Mackie Co., Inc., Miami, for 156 dwellings, 1,237,267.

EASTPORT—St. Regis Paper Co. plans \$12,000,000 pulp and kraft paper mill at Eastport just outside Jacksonville.

GAINESVILLE—City said \$1,650,000 in public improvements, revenue bonds to syndicate managed by Smith, Barney & Co.

GAINESVILLE—First Baptist Church received low bid from Fred H. Winston, \$256,395 for educational building addition.

GAINESVILLE—University of Florida let contract to George D. Auchter Co., Jacksonville, for women's dormitory, Units "A" and "B," \$1,260,099 and C. A. Fielland, Inc., Tampa, Unit "C," \$514,760.

JACKSONVILLE—City let contract to Joseph Reinertson, Miami, \$833,988, for additions to existing water distribution system.

JACKSONVILLE—Florida State Improvement Commission said \$28,000,000 bond issue for Jacksonville Expressway to syndicate headed by Smith, Barney & Co. and Hirth & Co., Miami.

JACKSONVILLE—Morrison Cafeteria let contract to S. S. Jacobs Co. for cafeteria, \$750,000.

JACKSONVILLE—W. T. Grant Co. plans three-story department store, \$1,000,000.

MAFPORT—Navy Bureau of Yards and Docks plans \$5,900,000 aircraft carrier basin on Rihault Bay.

MIAMI—Dade County Board of Public Instruction plans addition to George Washington Carver School, \$500,000.

NORTH MIAMI—United Housing Corp., United Res. Prop. Inc., United Homes Corp., let contract to United Construction Corp., for 75 dwellings, \$713,018.

NORTH MIAMI—Dade County Board of Public Instruction, Miami, plans North Miami Junior-Senior High School, \$748,000.

ORLANDO—Housing Authority of City received low bid from J. Hilbert Sapp, West Palm Beach, \$1,694,990 for Lake Mann Homes.

TALLAHASSEE—State Improvement Commission approved \$21,250,000 bond issue to build bridge across lower Tampa Bay.

TALLAHASSEE—Board of Control, Florida State University, received low bid from J. A. Jones Construction Co., Charlotte, N. C., \$759,000 for 8-story women's dormitory.

TALLAHASSEE—Board of Control, Florida State University, received low bid from Heers Construction Co., Atlanta, Ga., \$1,429,000 for residence hall for men.

TALLAHASSEE—Board of Control, Florida State University, received low bid from Jack Culpepper, \$287,800, for 3 men's dormitories, group B.

TALLAHASSEE—Florida State University said \$4,310,000 bond issue to John Nuveen & Co. and Lee Higginson Corp. for school construction.

TALLAHASSEE—State Road Department, received low bid for projects in following counties:

Hillsborough—State Proj. Job Nos. 1025-103 and 1003-109, Rd. Nos. 45 and 60, asphalt, conc. surf., 0.632 mi. and 0.290 mi.; Cone Brothers Contracting Co., Tampa, \$20,132.

Dixie—State Proj. Job 3001-133, Rd. 55, Ocala Lime rock base with asphalt. Conc. surf. course, 3.452 mi. and 0.290 mi.; rework and widening existing linerock base asphalt conc. surf. course, 8.78 mi.; low bidder, Georgia & Alabama Paving Co., Columbus, Ga., \$379,678.

Taylor—State Proj. Job No. 3851-150, Rd. S-361, Job 3852-107, Rd. S-356, Job No. 3853-150, Rd. S-356 and Job No. 3854-150, Rd. S-361, F. clearing and grading, grad. stab, linerock base with bitum. surf. treat. pavt., 10.637 mi.; Caddell & Jackson, Jacksonville, \$157,909.

Gadsden—State Proj. Job No. 5050-150, Rd. S-465-A, sand and clay base with bitum. surf. treat. pavt., 2.815 mi.; Doyle Pope, Quincy, \$38,052.

Leon—State Proj. Job No. 5510-103, Rd.

363, Asphalt conc. surf. course, 3.324 mi. and Job 5512-104, Rd. 61, sand clay base widening strips, asphalt conc. surf., 2.349 mi.; Faulk & Coleman Construction Co., Tallahassee, \$91,971.

DeFuniak Springs—State Proj. Job No. 6017-104, for roadwork, A. B. Covell, DeFuniak Springs, \$26,730.

Monroe—State Proj. Job No. 9006-908, Rd. No. 5, for roadwork, Powell Brothers, Inc., Ft. Lauderdale, \$158,764.

Monroe—Conc. and steel pilings to support existing bridge over Wilson Key Channel and Indian Key channel; Powell Brothers, Ft. Lauderdale, \$158,764.

Hillsborough—paving sections of Rds. 45 and 60; Cone Brothers, Tampa, \$29,132.

Taylor—Grad. and Hard-surf., 10.68 mi. of Rds. S-361 & S-356; Caddell & Jackson, Jacksonville, \$157,902.

Gadsden—paving 2.84 mi. of Rd. S-65-A; Doyle Pope, Quincy, \$38,052.

Dixie—paving 3.45 mi. of Rd. 55; Georgia Alabama Paving Co., Columbia, \$339,678.

Walton—hard-surf., 3.335 mi. of Rd. 593; A. B. Covell, DeFuniak Springs, \$26,730.

Leon—paving 3.324 mi. of Rd. 363 and 2.349 mi. of Rd. 61; Faulk-Coleman Co., Tallahassee, \$91,971.

VOLusia COUNTY—Turnbull Special Road and Bridge District said \$375,000 bond issue to B. J. Van Ingen & Co., Inc. and Clyde C. Pierce Corp. for road and bridge work.

GEORGIA

GEORGIA AND SOUTH CAROLINA—Corps of Engineers, Savannah, Ga., let contract to Georgia Consolidated Contr. Co., Inc., Manchester, Ct., \$1,800,480, for clearing of reservoir, Group III, Clark Hill Project, CIV. 68-133-51-1.

GEORGIA AND SOUTH CAROLINA—Corps of Engineers, Savannah, Ga., let contract to J. W. Bateson, Inc., Dallas, Texas, & Stollie, Inc., Oakland, Calif., \$7,079,790, for powerhouse and appurtenant works, Clark Hill Project, near Augusta.

ALBANY—University System Building Authority, Albany, let contract to S. J. Curry & Co., Albany, \$183,396 for men's dormitory at Albany State College.

ALBANY—Housing Authority of City received low bid from Byck-Worrell Construction Co., Savannah, \$847,000 for low rent housing project.

AMERICUS—University System Building Authority, Atlanta, let contract to Jack Culpepper, Tallahassee, Fla., \$138,642 for men's dormitory at Southwestern College.

ATHENS—Board of Education received low bid from Stillwell Construction Co., Macon, \$765,080 for high school.

ATHENS—University System Building Authority, Atlanta, let contract to Virginia Engineering Co., Newport News, Va., \$1,453,000 for Iah Dunlap Little Memorial Library, University of Georgia.

ATHENS—University of Georgia let contract to J. A. Jones Construction Co., Atlanta, \$334,000 for alterations and additions to Milledge Annex and Clark Howell Dormitories.

ATHENS—Dalrymp Co., let contract to Mathis Construction Co. for new building, \$200,000.

ATLANTA—Atlanta Housing Authority plans 500-unit \$5,000,000 low-rent housing development.

ATLANTA—Royal Crown Bottling Co. plans plant, \$150,000.

ATLANTA—Evans Properties, Inc. let contract to Van Winkle & Co. for warehouse and office building, \$97,000.

ATLANTA—University System Building Authority let contract to J. A. Jones Construction Co., \$894,265, for architectural building at Georgia Tech. University.

ATLANTA—State Highway Department received low bid from Claussen Lawrence Co., Augusta, \$1,040,100, for 4-lane highway on U.S. 80 on Dublin-Swainsboro Rd.

ATLANTA—State Highway Department received low bid from E. A. Hudson's Sons, Bolton, \$427,144, for part of Atlanta Expressway southern let.

ATLANTA—State Highway Department received low bids for projects in following counties:

Dooley—Fed. Aid Proj. F-081-1(1), 6.353 mi. grad., base and surf. treat.; also 1 bridge; T. D. Lamb, Jr., Vidalia, \$138,130.

Gooden—State Proj. S-062-1(1), 8.096 mi. grad., base and surf. treat.; also bridge at Town Creek; J. C. Kay, Calhoun, \$227,105.

Henry and Rockdale—Fed. Aid Sec. Proj. S-063-1(1), 5.112 mi. grad., base and surf. treat.; also bridge at South River; R. T. Smith, Atlanta, \$175,703.

Worth—Fed. Aid Sec. Proj. S-084-1(1), 5.339

mi. grad., base and surf. treat.; Glen G. Seating Co., Jacksonville, Fla., \$91,284.

Chattooga—bridge over Chattooga River; G. L. Strickler, Adstall, \$27,566.

Crisp—overpass on Cordelle-Vienna Rd.; H. M. Stafford, Jr., Waycross, \$70,547.

Lincoln—bridges over Newford Creek, and Pistol Creek; W. T. Anderson, Inc., Thomson, \$81,771.

Lincoln—bridge over Soap Creek on Rt. 53; Coffee Construction Co., Eastman, \$164,534.

ATLANTA—State Highway Department received low bids for projects in following counties:

Carroll—3.5 mi. paving; W. L. Robinson Construction Co., College Park, \$71,646.

Clayton—4.1 mi. paving and 1 bridge; Hugh Steele Construction Co., Centre, Ala., \$35,491.

Crawford-Monroe—4.3 mi. pavt.; Crumme and Crumme, Rochelle, \$147,517.

Dawson—2.6 mi. paving; J. B. Goss, Gordon Lumber Co., Commerce, \$41,517.

Dooly—6 mi. paving and 1 bridge on Vienna-American Rd.; T. D. Lamb, Jr., Vidalia, \$138,130.

Dooly—4 mi. paving on Unadilla-State Rt. 27; T. D. Lamb, Jr., \$19,588.

Gordon—8 mi. paving and bridge; J. C. Kay, Calhoun, \$217,284.

Hancock—4 mi. paving; Jefferson Contracting Co., Wadley, \$72,382.

Henry-Stockdale—5 mi. paving and 1 bridge on Stockbridge-Converts Rd.; Shepherd Construction Co., Anniston, \$180,000.

Faulkner—3.5 mi. paving on State Rt. 61-92; Knox Brothers, Thomson, \$72,536.

Pulaski—5 mi. paving; Thomason Construction Co., Macon, \$59,454.

Walker—3 mi. paving and 1 bridge on Rock Springs-Naomi Rd.; W. L. Cobb Construction Co., Decatur, \$57,752.

Wheeler-Laurens—5.7 mi. paving; Holland Construction Co., Milledgeville, \$39,355.

Worth—5.8 mi. paving; J. B. Goss Construction Co., Donaldsonville, \$89,848.

ALBANY—Richmond County Board of Education received low bid from Prather and Carter Construction Co., \$128,942, for Craig Negro Elementary School.

ALBANY—Augusta Hardwood Co. plans replacing plant recently destroyed by fire, \$80,000.

ATLANTA—Riverside Mills has work under way on two-story addition to plant, \$43,000.

BREWSWICK—State Highway Department, Atlanta, received low bid from Virginia Bridge Co., Roanoke, \$1,726,448, for building part of super-structure for Turtle River bridge.

CAMP GORDON—Corps of Engineers, Savannah, let contract to W. M. Fine, Spartanburg, S. C., \$105,433, for rehabilitation of facilities.

CARROLLTON—University System Building Authority let contract to Jones and Hardy, Montevallo, Ala., \$212,561, for dormitory for men at North Georgia College.

COLUMBUS—St. Paul Methodist Church received low bid from Williams Construction Co., \$614,500, for church.

COLUMBUS—City let contract to T. H. Pearce & Co., Columbus, \$194,388, for baseball stadium.

COLUMBUS—City Water Works let contract to Standard Construction Co., \$56,265, for administration office building.

COCHRAN—University System Building Authority, Atlanta, let contract to C. C. Sanford & Sons, Jacksonville, Fla., \$129,983, for men's dormitory at Middle Georgia College.

DAHLONEGA—University System Building Authority, Atlanta, let contract to Bailey-Brazell Construction Co., Greenville, S. C., \$427,623, for women's dormitory at North Georgia College.

DALTON—City plans \$700,000 school construction.

DALTON—City plans \$300,000 sewer lines.

DOUGLAS—University System Building Authority, Atlanta, let contract to Southern Construction Co., Augusta, \$226,340, for women's dormitory at South Georgia College.

DUBLIN—Board of Education will receive bids soon for following school facilities: elementary school, \$100,000; high school, \$225,000; elementary school, \$50,000; high school, \$80,000; elementary school, \$80,000.

EAST POINT—City let contract to T. Shackelford Construction Co., \$183,870, for police station.

FORT VALLEY—University System Building Authority, Atlanta, let contract to Culpepper and Edwards, Pelham, \$187,233, for library at Fort Valley State College.

GRIFFIN—Griffin-Spaulding County Hospital Authority let contract to Ivey Brothers Construction Co., Atlanta, \$175,000, for Griffin-Spaulding County Health Center.

HARTWELL—City let contract to Raborn, Burnett & Lambert Pipe Line Co., Baton Rouge, for natural gas transmission line and distribution system, \$250,000.

HINESVILLE—Corps of Engineers, Sa-

vannah, let contract to Esby Paving and Construction Co., Savannah, \$73,195, for rehabilitation of sewerage system, Camp Stewart.

HINESVILLE—Corps of Engineers, Savannah, let contract to Sloan Construction Co., Greenville, S. C., \$58,392, for concrete tent floors, Camp Stewart.

NEWNAN—Board of Education received low bid from R. H. Faye \$148,884, for gymnasium; shop building, \$60,977.

ROME—City Housing Authority received low bids for housing projects, Bates-Cook Co., West Point, \$1,549,980, for GA, 5-3, and Johnson and Johnson Construction Co., Rome, \$1,446,950, for GA, 5-4.

ROME—Department of Public Health State Office Bldg., Atlanta, received low bid from Johnson & Johnson Construction Co., Rome, \$134,961, for nurses' home No. 2, Batten State Hospital.

STATESBORO—University System Building Authority, Atlanta, let contract to Colte Somers Co., Vidalia, \$294,000, for annex to laboratory at Georgia Teachers College.

SAVANNAH—Whalley-Strong Co. have contract at \$106,484 for Children's Home.

VALDOSTA—Emory Junior College received low bid from J. N. Bray Co., \$124,495, for dormitory.

KENTUCKY

FRANKFORT—Department of Highways received low bids for projects in following counties:

Breathitt—Proj. S-47(5), SP-13-207, 1,020 mi. grade, drain and traf. bound limestone; Gorrell & Cheek Construction Co., \$62,625.

Calloway—Proj. S-139(1), SP-18-23, 0.433 mi. widening and bitum. surf., Class I or H; S. J. Boone, Owensboro, \$59,764.

Fayette—FT-2(4), SP-34-84, 3.926 mi. grade, drain, widening and bitum. surf., Class I; Breslin Construction Co., Louisville, \$496,027.

Fleming—S-178(2), SP-35-350, 3.494 mi. grade, drain, and traf. bound limestone; Davis & Shelton, Sandy Hook, \$64,020.

Floyd—S-193(2), SP-36-316, 1.638 mi. traf. bound limestone; George H. Cheek Construction Co., \$66,679, and traf. bound slag; Sam Nally Co., Bardonia, \$64,933.

Knox—S-61(2), SP-69-38, 6.362 mi. traf. bound limestone; George H. Cheek Construction Co., \$202,334, and traf. bound slag; George H. Cheek Construction Co., \$199,934.

Knox—S-72(3), SP-61-70, 11.986 mi. bitum. surf., Class I; Kelly Contracting Co., Louisville, \$179,307.

Livingston—S-196(1), SP-70-230, 5.377 mi. traf. bound limestone; Sam Nally Co., \$92,784, and bank or creek grav., Corbett Davidson & Son, and R. I. Cooke, Mayfield, \$76,254.

Marion—SP-9-59, 0.514 mi. traf. bound limestone; Codell Construction Co., Inc., Winchester, \$40,491.

Jefferson—SP-56-578, 1.222 mi. Second St.; Andrew Collins Asphalt Co., Louisville, \$119,482, and SP-56-163, 0.717 mi. Third St.; Breslin Construction Co., Louisville, \$70,422, and combined SP-56-573 & 56-168, George M. Eady Co., Louisville, \$179,339.

Cases—RS-23-281, 7.579 mi. bitum. surf., Class C-I; H. C. Adams, Lexington, \$63,907.

Estill—RS-33-263, 4.046 mi. traf. bound limestone; Ambrosius Industries, Inc., Louisville, \$56,804, and local bank or creek grav.; G&R Coal Co., Inc., Robbins, Tenn., \$52,102.

Jefferson—RS-56-363, 2.286 mi. reconstr. and bitum. surf., Class I; Highland Co., Inc., Louisville, \$45,782.

Letcher—RS-67-359, 4.65 mi. bitum. surf., Class C-I; Ferguson & Milliken Paving Co., Inc., \$33,633, and bitum. surf., Class F; Gay-Coleman Construction Co., Lexington, \$41,022.

Muhlenberg—RS-89-643, 5.776 mi. traf. bound limestone and Proposal No. 1; Ruby Construction Co., Madisonville, \$120,405, and traf. bound limestone, and Prop. No. 2; S. J. Boone, Owensboro, \$137,586, and traf. bound limestone and Prop. No. 3; Ruby Construction Co., \$101,732.

Owen—RS-94-433k, 4.439 mi. traf. bound limestone; R. C. Durr, Walton, \$26,236.

Barren—Proj. S-158(3), SP-5-92, 0.355 mi. bridge and traf. bound limestone approaches; Lyons & Breeden, Rogersville, Tenn., \$61,646.

Calloway—SP-18-223, 0.170 mi. bridge and approaches at E. Fork of Clarks River, Prop. No. 1; McDade & McDade, Fulton, \$25,534, and bridge and approaches, Prop. No. 2; McDade & McDade, \$31,951.

Kowan—SP-103-242, 0.284 mi. traf. bound limestone; bridge and approaches at Triple Creek; Codell Construction Co., Inc., Winchester, \$49,017, and bank or creek grav.; Hart & Edwards, Lexington, \$58,799.

Fayette—RS-34-361, 0.018 mi. bridge at Davis Fork of N. Elkhorn Creek; H. C. Adams, Contractor, Lexington, \$26,504.

Pendleton—RS-96-297, 6.134 mi. traf. bound limestone; George H. Cheek Construction Co., \$26,234.

Perry—RS-97-242, 2.750 mi. bitum. surf., Class C-I; Hinkle Contracting Co., Paris, \$22,423, and bitum. surf., Class F; Hinkle Contracting Co., \$21,818.

Spencer—RS-108, 187, 1.781 mi. traf. bound limestone and Proposal No. 1; Saltzman Construction Co., Bardonia, \$57,161, and traf. bound limestone and Prop. No. 2; Rice Brothers, Brooksville, \$58,556.

FRANKFORT—Department of Highways let contracts for projects in following counties:

Harlan—Proj. RS-48-848, 5.234 mi. reconstr. and local bank or creek grav.; Sam Nally Co., Bardonia, \$97,688.

Floyd—RS-36-356, 3.566 mi. reconstr. and traf. bound slag; Greer Brothers and Bullock, London, \$107,356.

Floyd—RS-36-236, 6.35 mi. reconstr. and traf. bound slag; Winston Ford Co., Prestonsburg, \$177,304.

Warren—S-32(2), SH-114-48, 6.943 mi. grad., drain and traf. bound limestone; Tobin & Hook, Hardinsburg, \$39,619.

Meade—SP-82-223, SP-92-603, 2.813 mi. reconstr. and crushed limestone; R. R. Dawson Bridge Co., Bloomfield, \$41,178.

Bell—RS-7-21, 0.651 mi. reconstr. and traf. bound limestone; J. C. Codell Co., Inc., Winchester, \$34,527.

Pike—RS-98-803, 1.721 mi. reconstr. and bitum. surf., Class C-I; Don Cline, Freeburn, \$22,885.

LEXINGTON—General Electric Co. plans \$750,000 expansion and conversion program for its Kentucky Glass Works plant; \$500,000 for new equipment, and \$250,000 for expansion.

LOUISVILLE—City plans \$1,500,000 bond issue for recreational facilities, and on a \$500,000 bond issue for improving acoustics and the condition of Memorial Auditorium.

LOUISVILLE—Board of Education received low bid from J. D. Jennings Corp., \$129,400, for addition to Hikes Graded School.

LOUISIANA

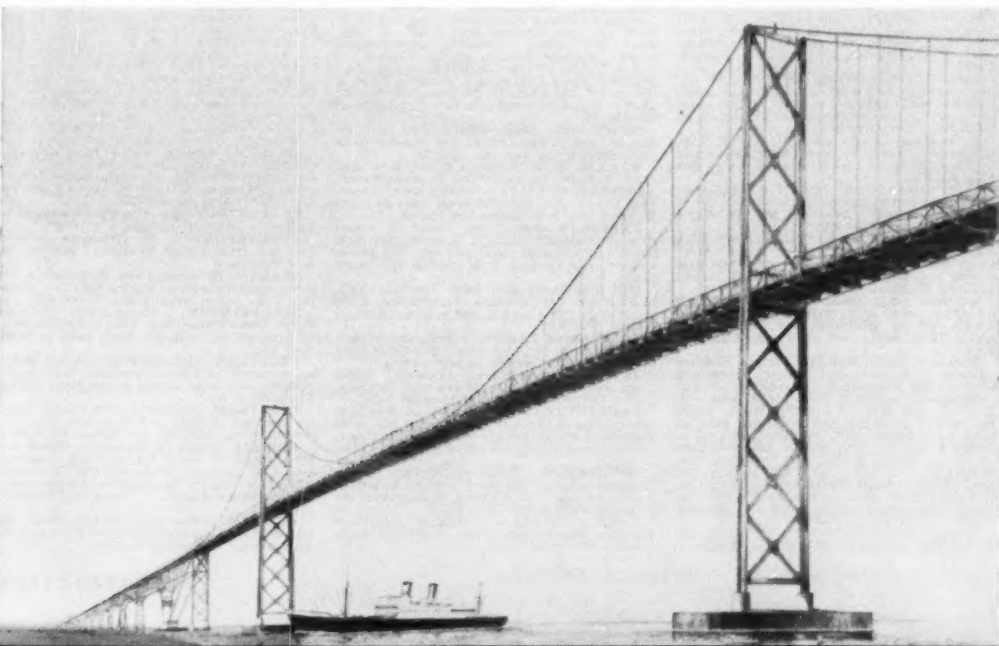
ALEXANDRIA—Corps of Engineers, New Orleans let contract to James P. Cross, New Iberia, \$218,380, for Reach No. 6 of Bayous Rapides, Bouff and Cocodrie Project in Rapides Parish.

ALEXANDRIA—Rapides Parish School Board received low bid from James A. Elard, Bunkie, \$146,500, for Samtown Elementary School.

ALEXANDRIA—Rapides Parish School Board received low bid from City Lumber Co., Inc., \$151,980, for Lampton Colored School.

(Continued on page 18)

Below—First steel will soon be placed for the \$44,000,000, four-mile bridge now being constructed across the Chesapeake Bay by the Maryland State Roads Commission. The drawing below, prepared by Joseph Tormey, shows the artist's conception of the bridge as it will appear when completed, with the 2,922-foot suspension span extending through the 354-foot high cable towers. The main stretch of the suspension span between the towers is to be 1,600 feet long; the two flanking spans, 661.25 feet in length. The series of nine deck cantilever trusses connect with the secondary navigation channel structure. This through cantilever truss structure will consist of a main span of 779.86 feet and anchor arms each 469.77 feet long. The view looks almost due east toward the eastern shore of the Chesapeake Bay. The bridge makes a one-degree four-minute curve at the right and sweeps 2,870 feet to the western bank where it connects with Maryland Highway Route No. 50. Bethlehem Steel Co. is the contractor at \$15,953,150.95 for the superstructure.



Southern Construction Projects

LOUISIANA

(Continued from page 17)

ALEXANDRIA—Rapides Parish School Board received low bid from R. J. Jones & Sons, \$562,086, for gymnasium at Bolton High School.

ALEXANDRIA—District Engineer, Tulsa District, Tulsa, Okla., let contract to R. P. Farnsworth & Co., Inc., New Orleans, \$1,500,000, for reconstruction of Alexandria Air Force Base.

BATON ROUGE—City let contract to Caldwell & McCann, Baton Rouge, \$134,748, for fire alarm headquarters building and drill tower.

BATON ROUGE—Dixie Electric Membership Corp. plans headquarters building on Airline Highway, \$134,600.

BATON ROUGE—Louisiana State University plans central administration building, elementary school, auditorium and music building, cafeteria, gymnasium and manual arts building, \$1,000,000.

BATON ROUGE—Louisiana State University received low bid from Barkdale and LeBlanc, \$134,000, for alterations and additions to Foster Hall.

BATON ROUGE—Recreation and Park Commission of East Baton Rouge Parish received low bid from Buquet & LeBlanc, \$148,883, for swimming and wading pool and combination bathhouse-recreation center.

BATON ROUGE—Department of Highways let contracts for projects in following parishes:

St. John the Baptist—blacktopping 7.7 mi. of Gypsy-Reserve Rd.; Texas Bitulithic Co., Dallas, Tex., \$110,571.

Evangeliste—blacktopping 5 mi. of Bayou Chicot-St. Landry Rd.; Pankey Wheat, \$94,566.

BATON ROUGE—Department of Highways received low bids for projects in following parishes:

Lincoln—State Proj. 23-10-10, Fed. Aid Proj. F-146(2), Bayou D'Arbonne bridge, Rt. 5, 0.9 mi. grad, small drain, str., reinf. conc. deck girder bridge and Portland cement conc. pvt. approp. T. L. James & Co., Inc., Ruston, \$359,621.

Orleans and St. Tammany—State Proj. 6-05-12 & 6-05-22, Right-of-way and Chief Menteur bridge, Rt. 2, 0.923 mi. repairs to electrical systems; C. W. Musauban Electric Co., New Orleans, \$123,575, for Combination No. 1, and C. W. Musauban Electric Co., \$197,500, on Comb. No. 2.

Calcasieu—State Proj. 12-02-10, Fed. Aid Proj. F-389(2) & F-389(3), Rt. 7, 6.039 mi. grad., small drain, str., reinf. conc. deck girder bridge and Portland cement conc. pvt.; Cook Construction Co., Jackson, Miss., \$1,340,293.

St. Bernard—Proj. 148-01-07, Rt. 61, 0.447 mi. grad., small drain, str., Portland cement conc. pvt. and aggr. type surf. on connection T. L. James & Co., Inc., Ruston, \$43,249.

Acadia—Proj. 210-02-04, Rt. 1044, 2.347 mi. grad., grav. base course or as alternate, small base course, small drain, str., reinf. conc. slab span bridge and bitum. surf. treat.; I. M. Goldbert, Abbeville, \$116,353.

St. Bernard—Proj. 284-02-07, Rt. 32, 7.280 mi. shaping roadway, shell base course and bitum. surf. treat.; W. R. Aldrich & Co., Box 1751, \$298,660.

St. Charles—Proj. 735-00-14, twin acre ferry boat and 2 landing pontoons for use in Mississippi River; Avondale Marine Ways, Inc., Westwego, \$18,000.

Calcasieu—Proj. 810-06-03, Rt. C-1947, 5.319 mi. grad., shaping roadway, drain, str., small base course or, as alternate, grav. base course and 3-application bitum. surf. treat.; LeBlanc Brothers, \$226,503.

Rapides—Proj. 340-10-03, Rt. 278-D, 4.828 mi. grad., small drain, str., soil cement base course, or, as alternate, grav. base course and bitum. surf. treat.; E. A. Caldwell, \$163,328.

Desoto—Proj. 703-07-13, 7.0 mi. shaping roadway and grav. surf. course; Bedolie & Shelby, 800 Franklin St., Mansfield, \$25,702.

Caddo—State Proj. Nos. 1-02-07 and 1-01-08, Fed. Aid Proj. F-160(7), Rt. 1, 10.389 mi. grad., patching and widening existing conc. pvt. bitum. surf. course; Item I. T. L. James & Co., Inc., Ruston, La., \$336,903; Item II. T. L. James & Co., Inc., Ruston, La., \$336,512.

St. Martin—State Proj. No. 4-03-03, Rt. 2, 0.010 mi. reinf. conc. box culv. on Cade-New Iberia highway; Forcum-James Co., Box 911, Baton Rouge, La. \$11,451.

Texas—State Proj. 23-30-11, Rt. C-2171, 551 mi. grad., drain, struc., Portland cement

conc. pvt. (widening); T. L. James & Co., Inc., Ruston, La., \$60,772.

East Baton Rouge—State Proj. No. 703-07-29, Part 1, State Rt. 887, 7.040 cu. yds. base course and clay grav. (Grade A), Rt. 887, Louisiana Sand & Gravel Co., 2642 N. Foster Drive, Baton Rouge, La.; \$24,569.

Terrebonne—State Proj. No. 793-07-26, 550 cu. yds. clamshell furnished and delivered F.O.B. parish trucks at Houma and 2,450 cu. yds. clamshell furnished and delivered stockpiled on bank at various sites; Leftwich Co., Inc., New Orleans, La., \$10,000.

St. Tammany—Proj. 703-07-22, Pt. 3, 4.032 mi., B.M. crescented southern yellow pine timber furnished and delivered stock-piled at storage yard on Hwy. 122, and 8,050 M.F.B.M. crescented southern yellow pine timber furnished and delivered stock-piled at fair grounds in Covington; H. A. Davis Lumber Co., Box 506, Slidell, La., \$2,001.

St. Tammany—State Proj. No. 703-07-22, Pt. 2, 3,950 cu. yds., washed grav. furnished F.O.B. parish trucks at pit sites; Jules W. Core, Covington, La., \$950.

St. Tammany—State Proj. No. 703-07-22, Pt. 1, 2,000 cu. yds., washed gravel; Kivett & Reel, Inc., Sun. La., \$2,825, Items 1, 2 & 3; F. J. Siout Dredging Co., Slidell, La., \$2,749, Items 4 & 5.

Ascension—State Proj. No. 703-07-21, Pt. 2, 1,500 cu. yds., washed grav.; Items 1, 2, 3, 4 & 6, Live Oak Sand & Gravel Co., Box 34, Watson, La., \$3,765, Item 5, Am. Sand & Gravel Co., Inc., 1445 Florida St., Baton Rouge, La., \$742.

Ascension—State Proj. No. 703-07-21, Pt. 1, 1,325 cu. yds., washed grav., furnished F.O.B. railroad cars; D. Donaldsonville Jahneks Service, Inc., 814 Howard Ave., New Orleans, \$4,435.

Madison—State Proj. No. 703-07-18, 2,134 cu. yds., washed grav.; Monroe Sand & Gravel Co., Inc., Monroe, La., \$10,171.

LaFourche—State Proj. No. 820-15-05 and 828-15-01, Rts. No. 488, C-2188, 11,046 mi. grad., small drain, struc., timber trestle and I-beam span bridge, aggr. surf. course; T. L. James & Co., Inc., \$316,680.

Union—State Proj. No. 856-02-07, Rt. 477, 5.638 mi. grad. and shaping roadway, drain, struc., crescented timber trestle span bridges, base course, or as alternate, soil cement base course, 3-application bitum. surf. treat., Henry & Hall, Dubach, La., \$97,249.

Ascension—State Proj. 260-01-06, Rt. 87, 0.859 mi. grad., small drain, struc., timber bridges, aggr. base course, bitum. surf. treat. asphalt cement; Barber Brothers Co., \$66,551.

Tangipahoa—State Proj. 277-01-07, Rt. 302, 4.692 mi. grad. and shaping roadway, small drain, struc., timber bridges, aggr. base course, or as alternate, soil cement base course, bitum. surf. treat.; Dickerson & Bowen, Brookhaven, Miss., \$139,389.

West Feliciana—State Proj. No. 703-07-17, 9,600 cu. yds. washed and 1,200 cu. yds. sand and clay grav. furnished spot-dumped along certain public roads; Items 1, 3, 4 & 7, Afton Villa Gravel Co., Bains, La., \$10,200; Items 2, 4, 5 & 8, Jackson Sand & Gravel Co., Inc., Box 47, Jackson, La., \$8,388; Item 9, Feliciana Sand & Gravel Co., Jackson, La., \$2,028.

BOYCE—City plans constructing, extending or improving natural gas transmission and distribution system, \$235,000.

BUNKIE—E. E. Rabalais & Son have contract, \$135,397, for new First Baptist Church.

DONALDSONVILLE—Police Jury of Ascension Parish plan \$100,000 bond issue in Road District No. 8 of Ascension Parish.

FERDINAND—Mayor and Board of Aldermen let contract to L. C. Tarlton Contracting Co., St. Louis, Mo., \$345,001, for sewer system, lift stations and sewage treatment plant.

HOUMA—South Louisiana Electric Cooperative Association plans construction of 75 miles of distribution line and system improvements, \$425,000.

JEFFERSON PARISH—Jefferson Waterworks District No. 1 approved \$5,000,000 bond issue for water system improvements.

JENNINGS—Southwest Louisiana Hotel Corp. let contract to Caldwell and McCann, Baton Rouge, \$467,408, for modern hotel.

LAFAYETTE—State Division of Administration, Baton Rouge, received low bid from Kaplan Construction Co., \$103,500, for tuberculosis laundry unit at Lafayette Charity Hospital.

LAFAYETTE—Lafayette Parish School Board sold \$2,538,000 bond issue to Schart & Jones, Inc., of New Orleans & Associates for school construction.

LAKE CHARLES—Southwest Louisiana Hospital Association plans \$1,800,000 Lake Charles Memorial Hospital.

LAKE PROVIDENCE—Police Jury of East Carroll Parish plans \$117,000 hospital.

MANDEVILLE—City let contract to A. N. Goldberg, Inc., New Orleans, \$106,582, for 4 miles of sewer mains and laterals and sewage treatment plant.

MINDEN—Webster Parish plans \$950,000 Courthouse and Jail.

NEW IBERIA—City sold \$150,000 bond issue to Kees, Wheeler & Woolfolk for sewerage improvements.

NEW IBERIA—Iberia Parish School Board let contract to Robert Angeles, \$417,739, for Center Street Elementary School, Lewis Street School and Live Oak School.

NEW IBERIA—Iberia Parish School Board sold \$725,000 bond issue to Ducournau & Kees of New Orleans for school improvements.

NEW ORLEANS—City Council received low bids from Keller Construction Corp. for Proposal No. 15,105 for overpass on Franklin Ave. at Florida Ave., \$1,065,000, and Proposal No. 15,106 for underpass on Franklin Ave. at Benefit St.

NEW ORLEANS—Dixie Highway Express let contract to R. P. Farnsworth & Co., Inc., for one-story freight terminal, \$123,000.

NEW ORLEANS—Western Electric Co. let contract to Barge-Thompson Co., Atlanta, Ga., for warehouse, \$950,000.

NEW ORLEANS—Orleans Parish School Board let contract to Farnsworth and Chambers Co., Inc., Houston, Tex., \$712,000, for Lakeside Elementary and Southern Ave.

NEW ORLEANS—H. G. Hill Stores Co. let contract to Keller Construction Corp. for super market building, \$135,900.

NEW ORLEANS—Orleans Parish Levee Board sold \$3,161,000 refunding bonds to White, Hattler & Sanford.

NEW ORLEANS—Corps of Engineers received low bid from Walter F. Villier & Co., \$154,392, for constr. of uncompacted earth work on Orange Farm Levee on west bank of Miss. River in Plaquemines Parish.

OAK GROVE—First Methodist Church let contract to Garland Construction Co., Rayville, \$73,280, for new brick veneer church.

SHREVEPORT—W. Murray Werner has contract at \$180,000 for shopping center at Kings Highway and Southern Ave.

SHREVEPORT—National Supply Co. received low bid from W. A. Gray Construction Co., Shreveport, \$103,534, for warehouse and office building.

SHREVEPORT—R. P. Farnsworth & Co., Inc., New Orleans, has contract, \$2,138,000, for Town House Apartments.

SHREVEPORT—R. M. Dean and L. R. Bowden have begun construction of \$374,000 7-story building for Cen-Wyan Apartments on Centenary Blvd.

SHREVEPORT—F. O. Gilbert, Bossier City, has work underway on \$750,000 plant for Wolf's Bakery Inc.

SHREVEPORT—W. A. McMichael Construction Co. has contract, \$193,285, for Broadmoor Methodist Church building.

SHREVEPORT—J. A. Jones Construction Co. has begun excavation work for \$3,213,589 14-story Caddo Apartments building.

SHREVEPORT—Sunset Acres Development Co. has begun extension of Sunset Acres subdivision on Mansfield Rd. with 256 homes to comprise the \$2,000,000 project.

SHREVEPORT—Commissioner of Public Utilities recommended an improvement program to City Planning Commission and City Council requesting approximately \$1,315,000 for improvements to city waterworks department, and approximately \$572,000 for sewage disposal system improvements.

SHREVEPORT—Bel-Aire Apartments plans \$200,340 apartment project.

SHREVEPORT—C. W. Glascock received low bid from Greer Brothers, \$69,500, for new residence.

STARKE—Jefferson Lake Sulphur Co. let contract to Tellespan Construction Co., Houston, Tex., for sulphur plant, \$1,000,000.

STERLINGTON—Commercial Solvents Corp., Terre Haute, Ind., \$90,000 plant to produce nitrogen solutions used in fertilizer trade.

TALLULAH—Madison Parish School Board let contract to Kelly-Coppage, Inc., \$156,313, for high school at Madison Parish Training School.

TALLULAH—Madison Parish School Board let contract to Dye and Mills, Inc., Columbia, Miss., \$161,367, for elementary school.

VIDALIA—Corps of Engineers, Vicksburg, Miss., received low bid from Cook Construction Co., Jackson, Miss., \$70,603, for earthwork and dressing 21 stations of levee crown on Red River Backwater Levee in Concordia Parish.

VIDALIA—Police Jury of Concordia Parish sold \$350,000 bond issue for drainage improvements, Concordia Parish.

THE GRADER THAT'S IN A CLASS BY ITSELF



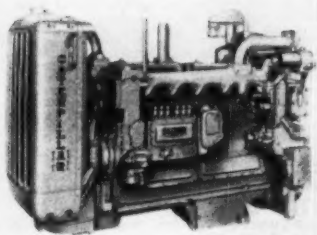
Exclusive bonus features, found only on "Cat" Diesel Motor Graders, make these balanced machines the best you can put on your payroll.

Of his "Cat" No. 12 Motor Grader, which moved more than 30,000 cubic yards of earth during the construction of the Contra Costa County Airport near Concord, Calif., owner Eugene G. Alves says: "I've operated 'Cat' equipment all my life. As far as I'm concerned, nothing can touch it; it's tops in equipment!" And Mr. Alves backs up his opinion by standardizing 100% with "Caterpillar" tools.

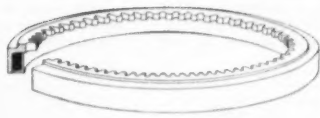
On the Contra Costa Airport job, the "Cat" No. 12 Grader has built roads, done grading and drainage structures, and constructed parking areas. With its engine, clutch, transmission, final drive and blade mechanism all *designed and built* by "Caterpillar," the machine has the balance and under-the-hide stamina to keep going the way you *hoped* it would when you bid on a job.

When a motor grader operator doesn't have a chance to stand around with his hands in his jeans looking for work, you know he's handling "Cat" equipment. Ask your "Caterpillar" dealer to *show* you his Motor Grader's exclusives.

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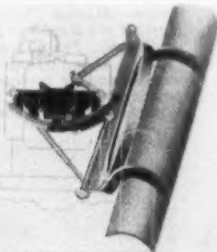


1 Only "Cat" Graders have "Cat" Diesel Engines for continuous service and economy of operation. These balanced tools *deliver*.



2 Only "Cat" Graders have a box-section blade supporting circle, made from a special angle produced on a "Caterpillar"-owned roll.

3 Only "Cat" Graders have the long radius curved side shift rack that provides extra lateral shift to the blade assembly, together with the required vertical movement.



4 Only with "Caterpillar" equipment do you buy-in on the world-wide "Caterpillar" dealer service—adequate parts inventory and factory-trained servicemen.

CATERPILLAR

DIESEL ENGINES • TRACTORS
MOTOR GRADERS • EARTHMOVING EQUIPMENT

Southern Construction Projects

(Continued from page 18)

MARYLAND

Interior Department announced a \$3,000,000 program for speeding construction of the Federal section of the Baltimore-Washington Parkway.

Department of Public Improvements, Baltimore, let contract to Windsor Construction Co., Baltimore, \$24,733, for additions to boiler room, State Guard motor vehicle storage building at LaPlata Army; \$23,945, Greenbelt Army; \$22,229, Glen Burnie Army; \$29,722, Prince Frederick Army; \$23,721, Leonardtown Army.

ANNAPOLIS—St. John's College plans new heating plant, \$300,000.

Corps of Engineers approved funds of \$2,408,000 for further improvement of Baltimore harbor, Savage River Dam and Cumberland, Md., and Ridgely flood control projects.

BALTIMORE—Herbert Fallin recommended a \$25,000,000 budget for Baltimore public schools for 1951.

BALTIMORE—Diecraft Co. plans tool and die plant, \$300,000.

BALTIMORE—The Fenwick Corp. of Baltimore plans 21 residences, \$160,000.

BALTIMORE—State Roads Commission plans \$25,000,000 Series C highway construction bonds.

BALTIMORE—Associated Jewish Charities received low bid from John K. Ruff, Inc., \$1,082,000 for Mt. Pleasant Hospital Unit, Greenspring and Belvedere Aves.

BALTIMORE—Board of Estimates let contract to Joseph F. Hughes & Co., Inc., \$6-188,266, for Edison-Barton-Mergenthaler Vocational High School, Hillen Rd. and 35th St.

BALTIMORE—City suggested construction of an upper deck above all of the existing horseshoe structure at Memorial Stadium, thus completing the project with a \$2,500,000 loan proposal.

BALTIMORE—Alton Construction Corp., 26 residences, \$192,000.

BALTIMORE—Samuel M. Platirio plans storage warehouse, \$125,000.

BALTIMORE—Fire Board plans training school area and fire stations, \$2,000,000.

BALTIMORE—John D. Lucas Printing Co. let contract to Redding & Co., Inc., for printing plant and office building, \$100,000.

BALTIMORE—Alan Construction Co., Inc., plans 16 dwellings, \$1,933,358.

BALTIMORE COUNTY—Model Homes, Inc. of Baltimore let contract to Superior Construction Co., Baltimore, for 54 dwellings, Ridgely Development, \$297,000.

BALTIMORE—William J. O'Meara will build 42 residences, \$252,000.

BALTIMORE—State Roads Commission let contracts for projects in following counties:

Below—Marion Type 93-M dragline with three-cubic yard bucket scoops into North Fork Bayou in Jefferson County, Texas. D. A. Franzen Construction Co., of Winnie, Texas, was the contractor. The machine was outfitted with a 90-foot boom and operated on wooden mats on the bank of the bayou as it excavated from the bottom and sides. D. A. Franzen, owner of the contracting firm bearing his name, is also a farmer and rancher. Milton Collins, Sr., was the superintendent on the bayou job. George Moore served as project engineer.



Frederick and Montgomery—Contract F-425-13-615, M-383-4-315; divided highway along relocation of U. S. Rt. 240, 3.527 mi.; Dutcher Construction Corp., Queenstown, Md., \$924,196.

Garrett—Contract G-155-5-615; bitum. cone wedge and surf. courses and crusher-run sub-base; macadam base and penetration macadam base, 3.123 mi.; Keeley Construction Co., Clarksburg, W. Va., \$383,646.

Montgomery—M-435-3-315; installation of storm sewer outfalls; Wilmoth Paving Co., Washington, D. C., \$144,871.

Allegheny—Contract A-423-1-617, F. A. P. S-191(1), shale base, bitum. armor coat, 0.997 mi.; George F. Hazelwood Co., Inc., Cumberland, \$40,872.

Montgomery—Contract M-435-2-315, F. A. P-152(2), Rt. 97, reinf. curb and gutter, curbing, sidewalk and storm water drain, 1.159 mi.; Wilmoth Paving Co., Inc. & P. Sts., SE, Washington, D. C., \$236,864 for grav.

Howard and Prince Georges—Contract HO-249-315, P-688-515; sanitary sewers along Laurel by-pass and grad., drain and surf. extension of Montgomery Ave., screenings foundation layer, macadam base course and bitum. cone surf., .059 mi.; William A. Harting, 2930 Hammonds Ferry Rd., Landsdowne, \$22,494 for slag.

Calvert—Contr. C-194-1-515—gravel surfacing-bituminous stabilized for a distance of 2.448 miles; C. H. Lawson, Williamsburg, Va., \$410,485.

Charles—Contr. Nos. CH-264-2-515; CH-270-2-515—highway improvements; F. P. Asher, Jr. & Sons, Inc., Annapolis, (revised), \$433,080.

St. Mary's—Contr. SM-291-515—A. H. Smith, Branchville, \$424,736.

BALTIMORE—State Roads Commission received low bid for projects in the following counties:

Montgomery—Contract No. M-464-317; Federal Aid Project No. S-200(1); 1.870 miles screenings foundation layer, macadam surfacing, grading, drainage and structures, Clopper Rd., Old Germantown to Clopper; Richard F. Kilne, Frederick, \$281,294.

Montgomery—Contract No. M-435-4-315; Federal Aid Project No. U-152(3); 1.732 miles reinforced cement concrete surfacing along State Rt. No. 97, grading, drainage and surfacing, divided highway along Georgia Ave.; Wilmoth Paving Co., Washington, D. C., \$765,832 for gravel, \$766,969 for stone and \$767,467 for slag.

Washington—Contract No. W-407-617; Federal Aid Project No. S-255(1); 0.609 miles bituminous concrete surfacing, application "B," Northern Ave., from U.S. Rt. 11, south-easterly to corp.; Bester-Long, Inc., Hagerstown, \$14,957.

Howard and Prince Georges—Contract HO-249-315; P-688-515; sanitary sewers along Laurel by-pass and grad., drain and surf. extension of Montgomery Ave., .059 mi.; William A. Harting, 2930 Hammonds Ferry Rd., Landsdowne, \$25,393 for stone and \$25,474 for slag.

Baltimore—Contract B-532-415, Fed. Aid Proj. U-136(2), alt. rt. U.S. 40, plain conc. pavi. and bitum. cone surf., 0.939 mi.; F. Reddington & Sons, 2 E. Lexington St., \$255,330.

Baltimore—Contract B-610-415; macadam base course, penetration macadam base course and bitum. cone widening, base and surf. courses, U.S. Rt. 111, 2.1 mi.; William A. Harting, 2930 Hammonds Ferry Rd., Landsdowne, Md., \$219,010 for stone; \$220,680 for slag.

Washington—Contract W-299-1-615; crusher-run sub-base, macadam base course and bitum. cone base, wedge, leveling and surf. courses, Rt. 65, 6.713 mi.; American Asphalt Products Co., 3301 Ridgewood Ave. and Arthur A. Mackle Construction Co., 797 1/2 Grantley St., \$763,327.

BALTIMORE—Board of Estimates let contracts for following project:

Contract 1092—Highway surf. and resurf.; P. Flanigan & Sons, Inc., \$123,723.

Contract 1093-AA—Paving Broening Hwy. with cement concrete; Frank L. Carozza Construction Co., \$59,678.

Contract 1094-A—Highway paving with cement conc.; Trinity Building & Construction Co., \$72,158.

Contract No. 1095-AA—Highway paving with cement conc.; P. Reddington & Sons, \$71,398.

BALTIMORE—Board of Estimates received low bid from Construction Co. of Maryland, \$244,090 for backfilling sub-aqueous water mains, under Baltimore Harbor, between Lazaretto and Fort McHenry and between Fort McHenry and Fairfild.

BALTIMORE—Board of Estimates received low bid from Wildberger-Best Construction Co., Inc., \$310,000 for Kirk Ave. grandstands and field facilities.

BALTIMORE—Canton Railroad Co. plans improvements to existing pier, \$1,000,000.

BALTIMORE COUNTY—Board of Estimates let contracts for sludge drying plant and or brick stack, Baltimore County, Back River Sewage Treatment Works, Contract No. 391, Section A&B; Chesapeake Contractors, Inc., 1301 Towson St., \$1,386,200 on Section A, and Custodis Construction Co., Inc., 25 Broadway, New York City, N. Y., on Section B, \$32,630.

BALTIMORE COUNTY—County Commissioners, Towson, let contracts for road improvement as follows: Contract No. 5069-R—White Oak Rd. and Oak Rd. in Ridgeleigh; State Construction Co., \$18,245; Contract No. 5082-R—Milford Rd. Cloudyfold Dr., Leifdale Terrace, Silver Spring Rd., Cliffedge Rd. and Judy Lane in Silver Creek, B. & W. Construction Co., Inc., \$41,694; Contract No. 5089-R—Darnall Rd. in Ruston Hills, Carozza-Churchill, \$3,716; Contract No. 5096-R—McHenry Rd., Sudbrook Park, Drummond & Co., Inc., \$9,978.

Contract 5019-R—Dundalk Village; Joseph A. Lavezza & Sons, 1208 Bank St., \$64,035.

BALTIMORE COUNTY—Baltimore County Metropolitan District, Towson, sold \$30,000 bonds to Union Securities Corp., New York for water and sanitary facilities improvements.

BALTIMORE COUNTY—County Board of Education, Towson, let contract to Lawrence Construction Co., Baltimore, for school at 400 S. Leeds Ave., \$577,770.

CAMBRIDGE—Zion Methodist Church plans church, \$250,000.

CATONSVILLE—Baltimore County Board of Education, Towson, let contract to Lawrence Construction Co., Inc., Baltimore, \$479,450 for Maiden Choice Elementary School.

DUNDALK—Hospital Committee plans \$1,000,000 general hospital for Dundalk-Essex-Middle River area.

HAGERSTOWN—City plans widening of boulevard to expand the city parking lot facilities, \$134,500.

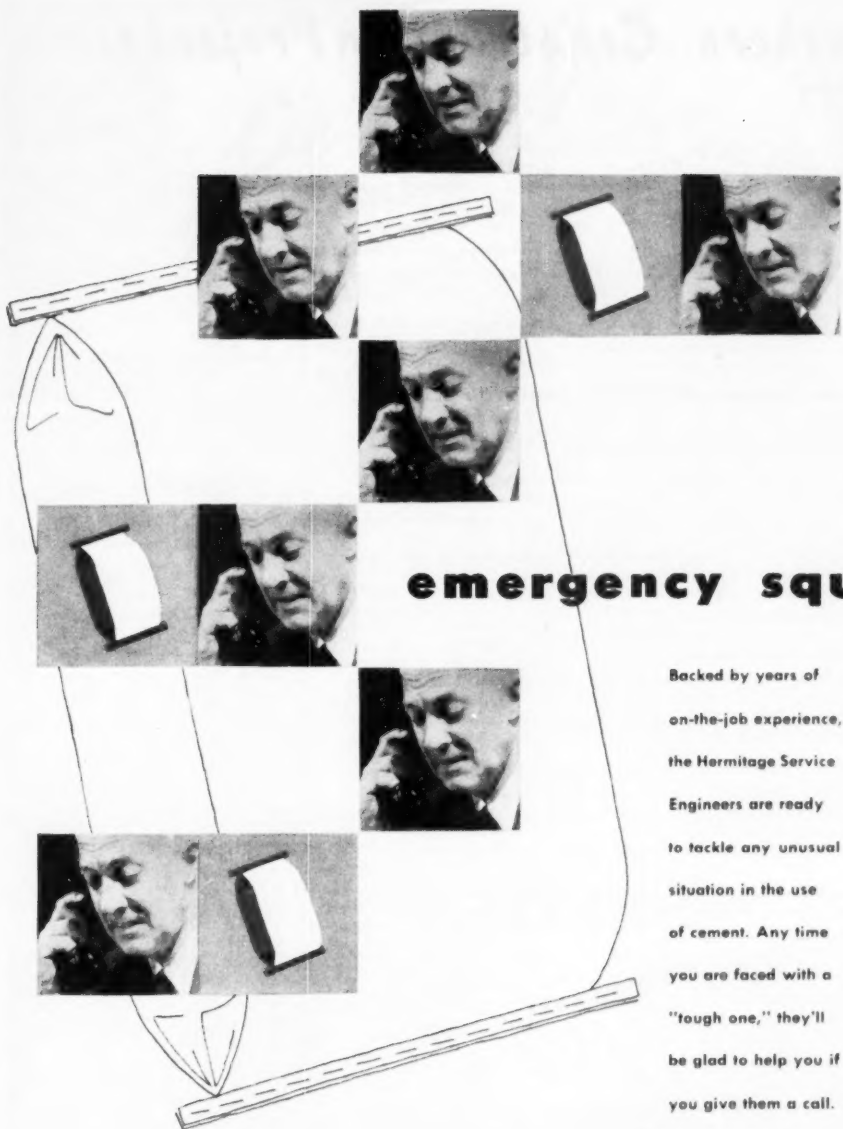
FROSTBURG—Berkowitz Co. plans new palama factory, \$250,000.

HYATTSVILLE—First Methodist Church plans \$200,000 educational building.

OAKLAND—County Commissioners plans \$200,000 school construction, including junior-senior high schools between Mountain Lake Park and Oakland and one at Cove.

OWINGS MILLS—Department of Public Improvements, Baltimore, let contract to Charles T. King, Baltimore, \$60,062 for additions and alterations to power plant, Rosewood State Training School.

(Continued on page 22)



emergency squad

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on-the-job experience,
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to tackle any unusual
situation in the use
of cement. Any time
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PORTLAND

HIGH EARLY STRENGTH

AIR ENTRAINING

MASONRY



Southern Construction Projects

MARYLAND

(Continued from page 20)

OWINGS MILLS—Department of Public Improvements, Baltimore, received low bid from Henry A. Knott, Inc., Baltimore, \$365,000 for alterations to Wyse and Thom Cottages, Rosewood State Training School.

PRINCE GEORGES COUNTY—County Board of Education received low bid from B. & J. Construction Co., Washington, D. C., \$565,318 for addition to Surrattville Elementary Junior-Senior High School.

ROCKVILLE—Montgomery County Council received low bid from Byrne Organization, Washington, D. C., \$1,154,000 for Montgomery County Office Building.

SALISBURY—City Council plans \$180,000 water and sewer system expansion.

SILVER SPRING—Montgomery County Board of Education, Rockville, let contract to

John Tester & Son, Inc., Washington, D. C., \$1,019,207 for Eastern Suburban Junior High.

TOWSON—Department of Public Improvements, Baltimore, let contract to John K. Ruff, Inc., Baltimore, \$456,840 for two dormitories, Towson State Teachers College.

MISSISSIPPI

MISSISSIPPI—Corps of Engineers, Vicksburg, let contract to Ace Mining & Contracting Co., Little Rock, Ark., \$136,679, for constructing Colewa and Big Creeks Channel improvement.

BILOXI—City Commission plans \$435,000 school improvements.

BILOXI—Corps of Engineers, Mobile, Ala., let contract to Ewin Engineering Corp., Mobile, Ala., for \$6,000,000 construction program at Keeler Air Force Base.

CANTON—Board of Supervisors of Madison County let contract to L. W. Havard, Canton, \$368,500 for King's Daughters Hospital.

CARTHAGE—Mayor and Board of Aldermen of town let contract to Hyde Construction Co., Jackson, \$249,000 for natural gas transmission main and distribution system.

CORINTH—City plans \$200,000 building for a manufacturing plant to be leased to Weaver Pans Corp.

CLEVELAND—Corps of Engineers, Vicksburg, let contract to Driver Contracting Co., Memphis, Tenn., \$243,380, for Dennis Levee Setback.

COLEMAN—City plans \$55,000 factory for manufacture of picture frames, mouldings and allied products.

GREENVILLE—City received low bid from Acme Construction Co., Mobile, Ala., \$145,000 for Contract No. S-1, pump stations and sewerage improvements.

GREENWOOD—Corps of Engineers, Vicksburg, let contract to Emmett Swilley, Jackson, \$129,411 for North Greenwood protection works.

ITTA BENA—State Building Commission, State Capitol Building, Jackson, let contract to Wright and Maugh, Leland, \$294,113 for two dormitories and cafeteria at Mississippi Vocational College.

JACKSON—State Highway Department let contracts for projects in following counties:

Jefferson and Copiah—F-013-1(1), 7.185 mi. grad. drain, culverts and bridge on Mississippi Hwy. 20; King Construction Co., Taylorsville, \$134,407.

Simpson—F-013-2(2), 2.098 mi. grad. drain, culverts and bridge on Hwy. 20; John H. Moon, Port Gibson, \$80,073.

Pontotoc—F-020-2(1), 2.415 mi. grad. drain, and culverts on Hwy. 6; Henson Brothers, Corinth, \$76,919.

Tippah—S-233(6), 1.380 mi. grad. drain, culverts, grav. base and double bitum. surf. treat. on Hwy. 4; S. L. Reed, Belzoni, \$33,857.

Oktibbeha—Prop. S-268(2), 0.712 miles of grading, drainage, culverts and double bituminous surface treatment on county highway between Starkville and Robertson Rd.; Phillips Concrete Products Co., Columbus, \$21,992.

JACKSON—City let contract to Belta Paving Co., Jackson, for pvt. on Englewood St., Chartaw Rd., and other streets, \$19,147.

JACKSON—City let contract to P. E. Tyler Co., Jackson, for pvt. on Glenwood St., Terrace Ave. and other streets, \$50,618.

JACKSON—State Highway Department let contract for project in following county:

Washington—Proj. U-211(7), 1.419 mi. incidental grad. drain, culverts and reinf. cement conc. pvt. on U.S. Hwy. 82; Burdine Construction Co., Greenville, \$105,454.

JACKSON—City Council received low bid from Taylor-Wheless Co., Memphis, Tenn.,

(Continued on page 24)

Distributor for Kentucky Host to Le Tourneau School

The Mobile Sales Training Unit, sent out by R. G. LeTourneau, Inc., to bring to its distributors the latest information on LeTourneau tools and how they can best serve contractors in the construction field, held a session recently at Wilson Machinery and Supply Co., at Lexington.

The Lexington stop was the final one of two big swings the mobile unit made earlier this year.

The first one started at Columbus, Ohio, and covered Raleigh, N. C., Atlanta, Ga., Nashville, Tenn., Jackson, Miss., Memphis, Tenn., and St. Louis, Mo.

The second started at Kansas City, Mo., and covered San Antonio, Tex., Dallas, Tex., Oklahoma City, Okla., Denver, Colo., Cedar Rapids, Iowa, Eau Claire, Wis., Chicago, Ill., Indianapolis, Ind., Charleston, W. Va., and ended at Lexington.

In each instance, school sessions were held at the place of business of the LeTourneau distributor located in the res-

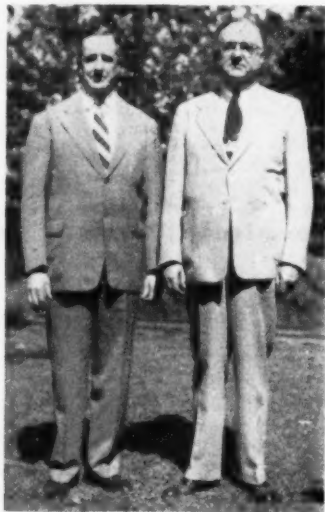
spective cities.

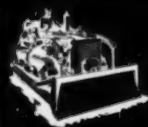
The company's giant mobile unit is powered by a cab-over-engine tractor, and pulls a 33-foot van type, dropframe trailer. Built to special LeTourneau specifications, the unit is painted in the LeTourneau colors—a yellow and brown combination. It represents the latest word in a major manufacturer's traveling school facilities, and is manned by a staff of company men skilled in LeTourneau equipment sales procedures.

The training material which the unit transports is set up indoors at distributors' showrooms in a portable classroom which the truck carries. Used for instruction purposes is a complete selection of equipment cutaways, displays and exhibits.

Its current schedule of sales training schools completed, the mobile unit now is on the road to fulfill its schedule of service training schools, which also are conducted at distributors' places of business.

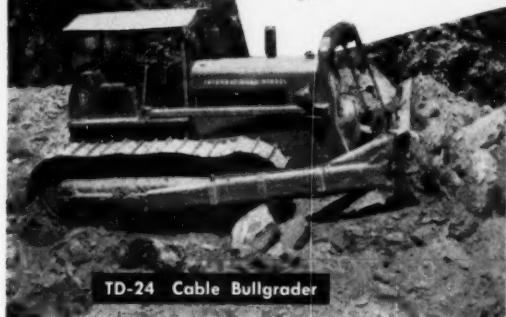
Below—LeTourneau field training unit truck and a view of the equipment it carries. At the right are E. Reed Wilson (left), president, and Tifford Wilson, vice president, of Wilson Machinery & Supply Co., Lexington, during sessions of the school recently held at that Kentucky point.





On Any Job...

Bucyrus-Erie Bullgraders and
Bulldozers Are Standouts for
Earthmoving!



TD-24 Cable Bullgrader



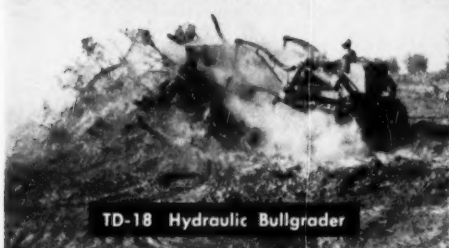
TD-24 Cable Bulldozer

Hydraulic or cable-controlled, Bucyrus-Erie Bullgraders and bulldozers pace the way to greater output on hundreds of construction jobs. They're sturdily built to stand up to hard work. They're quickly responsive to operator demands. They're easy on the tractor because their balanced design puts loads where the International Harvester tractor is designed to take them. To move more dirt and move it faster, always choose Bucyrus-Erie Bullgraders and bulldozers!

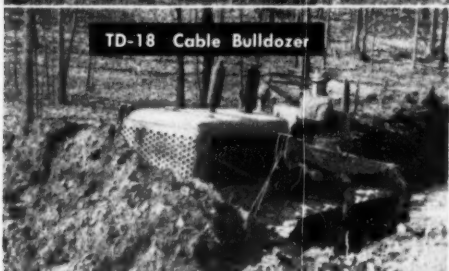
Bucyrus-Erie Co., South Milwaukee, Wis.

INTERNATIONAL Industrial Tractor Distributor

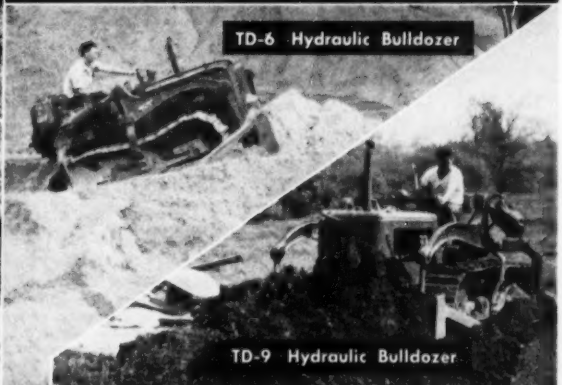
SEE
YOUR



TD-18 Hydraulic Bullgrader



TD-18 Cable Bulldozer



TD-6 Hydraulic Bulldozer



TD-14 Cable Bullgrader



TD-14 Hydraulic Bullgrader

**BUCYRUS
ERIE**

Southern Construction Projects

MISSISSIPPI

(Continued from page 22)

\$128,044 for Project No. 118.5, sanitary sewers, manholes and necessary appurtenances on Eubanks Creek Outfall, sewer and Hyde Construction Co., Jackson, \$236,448 on Project No. 120.5, Town Creek Outfall Sewer.

JACKSON—State Building Commission plans \$5,000,000 medical school and teaching hospital.

JACKSON—Board of Trustees of Central Presbyterian Church let contract to King-North Construction Co., \$167,620 for church and Sunday school.

JACKSON—Federal Government and officials of Gulf Coast plan allocation of \$1,250,000 in Federal aid for beach erosion corrections; government has already allocated \$300,000.

LOUISVILLE—Board of Public Utilities, Meridian, let contract to H. Watkins, Meridian, \$51,820 for one-story and basement municipal office building.

MAGEE—City received low bid from Boyd Construction Co., Columbia, \$41,821, for bitum. surf. treat.

MAGNOLIA—City approved issuance of \$135,000 bond issue for building for Kraft Cheese Co.

MEADVILLE—Board of Trustees of Meadville Special Consolidated School District let contract to L. Chester Owens, Jackson, \$89,557 for auditorium, cafeteria and alterations.

MERIDIAN—First Presbyterian Church received low bid from B. L. Knott, \$72,227, for addition and alterations to church.

NEWTON—Mississippi State Highway Department, Jackson, let contract to B. L. Howell & Sons Construction Co., Philadelphia, \$83,975 for Fifth District Office Building, U. S. Highway No. 80 West.

PORT GIBSON—Board of Supervisors of Claiborne County plans remodeling and enlarging courthouse, \$40,000.

PORT GIBSON—Board of Supervisors of Claiborne County plan jail and remodeling as an office building the old jail building, \$50,000.

RAYMOND—Hinds County Junior College let contract to G. E. Bass & Co., Jackson, \$365,652 for administration building, academic building and cafeteria and student activities building.

RAYMOND—Hinds County Board of Education, Jackson, let contract to T. M. McGregor, Jackson, \$107,129 for physical education building at Raymond Consolidated School.

SANATORIUM—State Building Commission, Jackson, received low bid from Elm Brothers Construction Co., Jackson, \$207,940 for new nurses' home for colored, 4 cottages for white employees, 2 residences for white staff, 6 dormitory-type cottages for colored, 6 dwelling units for colored, power distribution, 6-inch water supply loop and outside utilities, Mississippi State Sanatorium.

STONEWALL—Board of Trustees of Stonewall Consolidated School District let contract to John Low Jr., \$51,360, for auditorium and class room building and addition to present gymnasium at Stonewall High School.

TUPELO—City plans \$1,050,000 water and sewer construction.

VICKSBURG—Congregation of First Presbyterian Church let contract to W. T. Walker

Co., Vicksburg, \$40,670, for new church and educational building.

VICKSBURG—City let contract to Currie & Corley, Raleigh, \$244,040 for municipal auditorium.

VICKSBURG—R. H. Ables submitted low bid of \$149,975 for two-story newspaper plant for Vicksburg Evening Post and Herald.

WASHINGTON—L. L. Brasfield, architect, Vicksburg, has plans and specifications for one-story high school and elementary, \$135,000.

MISSOURI

BONNE TERRE—Board of Education plans elementary school, \$235,000.

CLAYTON—Shaw and Francis, Inc., plan \$5,000,000 apartment development.

EUREKA—Reorganized School District No. R-6, Board of Education, let contract to George Moeller Construction Co., St. Louis, for shop building, \$84,690, and George L. Cousins Contracting Co., St. Louis, on Vander School, \$95,800.

FERGUSON—First Baptist Church received low bid from William Vogel, Overland, \$32,178, for education building.

GLENDALE BL. ST. LOUIS—Lutheran Church of Webster Gardens let contract to Fred E. Gast, Webster Groves, for school, \$55,000.

JEFFERSON CITY—State Highway Commission received low bids for projects in following counties:

Henry—S-28 (1), S.H. 1.195 miles, G.E. Br. & 20 P.C.C. pvt., Ben D. Prater, Harrisonville, \$85,952.

Crawford—S-1145 (1), S.J. 4.437 miles, G.E. bridge and gravel or crushed stone surf., Porter-Dewitt Construction Co., Poplar Bluff, \$37,764.

JEFFERSON CITY—State Highway Commission let contract for projects in following counties:

Livingston—Rte. 65, U-287 (3), 0.797 miles, G.E. and P.C.C. pvt., Atkinson-Windle Co., Chillicothe, \$138,248.

Livingston—Rte. 36, F-233 (9), 1.251 miles, G.E. and P.C.C. pvt., Atkinson-Windle Co., Chillicothe, \$161,858.

St. Louis—S-428 (1), 1.195 miles, G.E. and P.C.C. pvt. var. widths, Fred Weber, Contr., Inc., St. Louis, \$259,743.

Henry—Rte. 13, Section 33, 0.355 miles, G.E. bridge and 20 P.C.C. pvt., Ben D. Prater, Harrisonville, \$85,952.

St. Charles—99T-R, F-391 (1), 0.017 miles, bridge, Kirkwood Construction Co., (Alt. 1), Kirkwood, \$48,926.

Nodaway—S-503 (3), 0.473 miles, G.E. Br. and gravel or crushed stone surf., Clark & Runquist Construction Co., Savannah, \$22,068.

Adair—S.D., S-1094 (1)A-A, 3.520 miles, graded earth, Quinn Construction Co., Salisbury, Mo., \$9,584.

Adair—S.D., S-1094 (1)A-B, 2.152 miles, graded earth, Quinn Construction Co., Salisbury, Mo., \$3,709.

Adair—S.D., S-1094 (1)A-C, 4.770 miles, G.E., 7 bridge, Quinn Construction Co., Salisbury, Mo., \$185.

Saline—S-Y-Y, S-1208 (1), 2.625 miles, G.E. and grav. or crushed stone surf.; Howard Construction Co., Sedalia, Mo., \$12,983.

Worth—S-F, S-1132 (1), 3.580 miles, G.E.

and grav. or crushed stone surf.; Krehbiel-Stalker Construction Co., Columbia, Mo., \$28,144.

Adair—S.D., S-1094 (1) B-A, grav. or crushed stone surf., 3.520 miles, Everett R. Elisea, Kirksville, Mo., \$6,263.

Adair—S.D., S-1094 (1)B-B, 2.152 miles, grav. or crushed stone surf.; Everett R. Elisea, Kirksville, Mo., \$3,575.

Adair—S.D., S-1094 (1)B-C, 4.770 miles, grav. or crushed stone surf.; Everett R. Elisea, Kirksville, Mo., \$6,426.

KIRKWOOD—City let contract to Skrinka Construction Co., University City, \$44,732, for sanitary sewers.

HIONTON—Black River Electric Cooperative plans 125 miles of distribution line, system improvements, and completion of previously approved work, \$405,000.

LADUE—Ladue School District, Board of Education plans high school, \$675,000.

LADUE—Ladue School District plans \$675,000 secondary school.

LADUE—Old Warson Club plans \$600,000 country club.

MARSHFIELD—Webster Electric Cooperative received low bid from Pendleton Construction Co., Oklahoma City, Okla., \$165,589, for distribution lines, Section H.

MARYLAND HEIGHTS—Maryland Heights School District, Board of Education, approved \$45,725 bond issue for additions to school.

ST. JAMES—State Department of Public Health and Welfare, Jefferson City, received low bid from Roy Scheperle Construction Co., Jefferson City, \$227,770, for dormitory at Federal Soldiers Home.

ST. LOUIS—Alma Co. let contract to A. J. Buckel for 4 apartments, \$150,000.

ST. LOUIS—Bettendorf's Select Foods, Inc., let contract to Jones-Kissner Construction Co., \$66,201, for addition to warehouse.

ST. LOUIS—First National Bank let contract to H. B. Deal & Co., Inc., for addition to bank, \$55,000.

ST. LOUIS—Portia Carriage Co., Inc., let contract to Murch-Jarvis Co., Inc., for truck terminal and office, \$65,000.

ST. LOUIS—Arkansas Motor Freight Lines, Inc., let contract to Murch-Jarvis Co., Inc., for truck terminal and office, \$175,000.

ST. LOUIS—East Texas Motor Freight Lines let contract to Murch-Jarvis Co., Inc., for truck terminal and office, \$175,000.

ST. LOUIS—Zavis Brothers will build 4 apartments, \$150,000.

ST. LOUIS—R. A. Baudendistel, Inc., will build 2 apartments, \$90,000.

ST. LOUIS—St. Louis Housing Authority plans housing project, \$12,000,000.

ST. LOUIS—Morris Silvergold let contract to Gus Kolchinsky, addition to hotel, \$50,000.

ST. LOUIS—Warner-Kol-Bee Shop let contract to John Hill Construction Co., for bakery, \$55,000.

ST. LOUIS—St. Louis County Public Library Board received low bid from James H. Bright Contracting Co., \$66,984, for alterations to library building.

ST. LOUIS—McDonnell Aircraft Corp. plans expansion program; first project would be a \$1,500,000 flight-test hangar.

ST. LOUIS—Frederick Moehlenhof will build two residences, \$40,000.

ST. LOUIS—Hayes Freight Lines, Inc., let contract to J. S. Aberiel Construction Co. for addition to truck terminal, \$40,000.

ST. LOUIS—Monsanto Chemical Co., Phosphate Division, Anniston, Ala., let contract to William H. & Nelson Cunliff for manufacturing building, \$100,000.

ST. LOUIS—Cole Chemical Co. let contract to Talbott-Quevreaux Construction Co. for addition to warehouse, \$40,000.

ST. LOUIS—City Products Corp. let contract to L. O. Stocker Co. for offices and store-room, \$50,000.

ST. LOUIS—Schenberg's Markets let contract to Hercules Construction Co., Clayton, for super market addition, \$50,000.

ST. LOUIS—St. Louis Columbus Home Association plans central headquarters building, \$250,000.

ST. LOUIS—Schattgen Co. will build residences, \$100,000.

SAVANNAH—Northwest Missouri Electric Cooperative let contract to Pendleton Construction Co., Oklahoma City, Okla., \$133,699, for 106.25 miles of line.

SEDALIA—Central Missouri Electric Cooperative, Inc., let contract to James H. Drew Corp., Indianapolis, Ind., \$208,338, for 141.75 miles of line.

NORTH CAROLINA

NORTH CAROLINA-VIRGINIA—Corps of Engineers, Washington, D. C., allocated \$2,950,000 for continuing work during coming year on Bugs Island Reservoir.

ALAMANCE COUNTY—Local Government

(Continued on page 26)

Below—\$5,000,000 apartment house "1500 Massachusetts Avenue" being erected at Washington, D. C., by Ring Engineering Co., Inc. The building will be 486 feet long by 110 feet deep and will contain 556 apartments, of which 445 will be the efficiency type and 111 will have one bedroom. Garage space for 294 automobiles will be provided in the basement and sub-basement. The heating plant and air conditioning units will be located on the roof. The central part of the structure will contain the elevators, storage rooms for tenants, laundries, carpentry and plumbing shops. This space will occupy 109 by 25 feet on each floor. F. Wallace Dixon, of Washington, is the architect. Owner of the stock in 1500 Massachusetts Avenue, Inc., is the International Brotherhood of Electrical Workers.



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INTERNATIONAL TRUCKS

INTERNATIONAL HARVESTER COMPANY CHICAGO

Southern Construction Projects

NORTH CAROLINA

(Continued from page 24)

Commission, Raleigh, sold \$1,000,000 bond issue to Equitable Securities Corp. & Associates, for school improvements.

BEAUFORT COUNTY—County Board of Education received low bid from H. L. Coble Construction Co., Greensboro, combination bid of \$317,200 for high and elementary school.

BERTIE COUNTY—County Board of Education, Windsor, received low bid from J. L. Batton & Brothers, Edenton, \$210,000 for Union School.

BOONE—Appalachian State Teachers College let contract to L. B. Gallimore, \$943,485 for boys' dormitory and girls' dormitory.

CHAPEL HILL—Chapel Hill School Administrative Unit let contract to J. A. Jones Construction Co., Charlotte, \$277,950 for high school.

CHARLOTTE—City plans \$3,000,000 auditorium and coliseum.

CHARLOTTE—Associated Plywood Mills, Inc., Eugene, Ore., let contract to J. A. Jones Construction Co., for warehouse and distribution center, \$500,000.

COLUMBUS—Deering Milliken Co. let contract to Daniel Construction Co., Greenville, S. C., for \$12,000,000 woolen mill; equipment to cost approximately \$10,000,000, grounds and structures approximately \$2,000,000.

DURHAM—Duke University let contract to William Mulhearn Construction Co., \$981,800 for graduate men's dormitory.

ELIZABETHTOWN—Board of Trustees of Bladen County let contract to Southern Enterprises Construction Co., Columbia, S. C., \$449,280 for Bladen County Hospital.

FAYETTEVILLE—State Teachers College received low bid from L. P. Cox, Sanford, combination bid of \$350,000 for auditorium, teachers' dormitory and girls' dormitory.

FAYETTEVILLE—Housing Authority of Fayetteville received low bid from H. L. Coble Construction Co., Greensboro, \$1,246,800 for housing project.

GREENSBORO—A. I. College received low bid from H. L. Coble Construction Co., \$398,750 for trades building and Brooks Lumber Co. for dairy plant, \$112,549.

HENDERSON COUNTY—County Board of Education received low bid from A. H. Gulon Co., Charlotte, \$328,000 for cafeterias and gymnasiums at Etowah, Dana and Fletcher Schools.

KINSTON—E. I. du Pont de Nemours & Co., Wilmington, Del., plans \$24,000,000 rayon yarn plant.

LENOIR COUNTY—North Carolina State Board of Correction and Training received low bid of \$588,520 from Crain & Denbo, Inc., Durham, for 5 buildings.

LOUISVILLE—City plans \$5,000,000 bond issue for major street and traffic improvements, \$1,000,000 for purchase of expressway rights of way and \$3,000,000 for railroad grade-crossing elimination.

MARION—Marion Manufacturing Co. plans expansion and modernization program, \$500,000.

RALEIGH—Wake County Board of Commissioners received low bid from J. M. Thompson & Co., Raleigh, \$288,000 for addition to Wake County Sanatorium.

RALEIGH—Carolina Power & Light Co. plans \$15,000,000 bond issue for power and light construction.

RALEIGH—Wake County Board of Commissioners let contract to J. M. Thompson & Co., Raleigh, \$231,522 for addition to Wake County Sanatorium.

RALEIGH—State Highway and Public Works Commission received low bids for projects in following counties:

Durham—4.21 miles of grad. and pavt.; A. C. Shearer Co., Chapel Hill, \$60,955;

Allegany—3.52 miles of grad. pavt. and str.; W. E. Graham & Sons, Cleveland;

Cleveland—15 mi. grad. and pavt. and str.; McMeekin Construction Co., Cheraw, S. C., \$113,761.

Alexander—5.44 miles of grad. pavt. and str.; Knight, Inc., Raleigh, \$97,614, for roadway; Suber & Co., Inc., Whitmire, S. C., \$16,733, for str.

Alexander-Iredell—6.58 miles of grad. pavt. and str.; Suber & Co., Inc., Whitmire, S. C., \$13,224, for roadway; Suber & Co., Inc., Whitmire, S. C., \$31,640, for str.

Gaston—0.45 mile grad. pavt. and gutter and str.; Harvey H. Stewart, Charlotte, \$146,247.

Davidson—1.12 miles of resurf.; Sloan Construction Co., Inc., Greenville, \$12,058.

Hike—1.45 miles of surf.; Ballenger Paving Co., Greenville—\$12,167.

Davidson—0.6 mile of resurf.; Thompson-Arthur Construction Co., Greensboro, \$7,612;

Hoke—7.3 miles of hard-surf.; J. F. Cleckley & Co., Orangeburg—\$28,803;

Jones-Craven—6.04 mi. grad. and str.; Eldson Construction Co., Mocksville, \$62,921 for roadway and Sanford Construction Co., Sanford, \$39,550 for str.

Onslow—6.59 mi. grad. pavt. and str. on U.S. 17; Dickerson, Inc., Monroe, \$21,205 for roadway and Sanford Construction Co., \$37,703 for str.

Franklin—11.92 mi. grad., pavt. and str. on N.C. 561; Nello L. Teer Co., Durham, \$301,001 for roadway, and E. F. Brankley, Raleigh, \$32,011 for str.

Alamance—6.88 mi. grad. and pavt.; Dickerson, Inc., Monroe, \$159,420;

Mecklenburg-Union—5.16 mi. grad. and str.; Eldson Construction Co., \$216,574 for roadway and Wilson Construction Co., Inc., Salisbury, \$146,906 for str.

Yancey—0.445 mi. grad. pavt. and str. on U.S. 19-E and N.C. 197; Wilson Construction Co., Inc., \$71,286;

Cleveland-Lincoln—8.47 mi. grad. pavt. and str.; E. H. Hones Construction Co., \$79,485 for roadway, and Wilson Construction Co., Inc., \$58,500 for str.

Martin—8.51 mi. grad.; Hill Construction Co., Washington, \$56,449;

Craven-Carteret—11.28 mi. grad. and hard-surf.; Barrus Construction Co., Kinston, \$71,615;

Lenoir—3.76 mi. grad. and pavt.; Barrus Construction Co., \$48,842;

Farmville—7 mi. grad. and hard-surf.; Sam Finley, Inc., Roanoke, Va., \$41,025;

Pitt-Craven—14.51 mi. grad. and subgrade reinf.; Dickerson, Inc., Monroe, \$84,350;

Pitt—6.56 mi. grad. and subgrade reinf.; Clark Construction Co., Greenville, S. C., \$36,293;

Columbus—0.3 mi. pavt. in Whiteville; Brown Paving Co., Lexington, \$30,617;

Ken Haver—2.7 mi. pavt. and conc. curb and gutter in Wilmington; Towles-Cline Construction Co., Wilmington, \$53,197;

Columbia—5.3 mi. pavt.; Zeigler-Cline Construction Co., Fayetteville, \$61,224;

Johnston—4.96 mi. pavt. on U.S. 301; F. D. Cline Construction Co., \$47,880;

Franklin-Nash—10.9 mi. pavt.; F. D. Cline Construction Co., \$56,500;

Johnston—11 mi. pavt.; Dickerson, Inc., Monroe, \$56,940;

Wake—6.7 mi. pavt.; F. D. Cline Construction Co., \$56,500;

Wilson—8.4 mi. pavt.; Brown Paving Co., Lexington, \$41,471;

Guilford—3.1 mi. pavt.; Thompson-Arthur Construction Co., Greensboro, \$35,740;

Guilford—1.5 mi. pavt. and repairs on Ward St. in High Point; Thompson-Arthur, \$18,217;

Surry—0.8 mi. pavt. on Franklin St. in Mt. Airy; Ballenger Paving Co., Greenville, S. C., \$17,860;

Burke—5.69 mi. grad. and pavt. at Chesterfield; A. R. Thompson, Contractor, Inc., Rutherfordton, \$44,806;

Rutherford—7.66 mi. grad. and pavt.; A. R. Thompson, Contractor, Inc., \$58,531;

Cabarrus—Widening existing bridge over Southern Railway and bridge over Irish Buffalo Creek, including approaches on U.S. 29-A in Concord; W. F. Brinkley & Son Construction Co., Granite Quarry, \$114,157;

Yancey—Struc. at Sandy Creek; John H. Brinkley, Thomasville, \$12,471;

Rockingham—Bridge over Southern Railroad at Foushee; H. A. Triplett, Inc., Chester, S. C., \$21,870;

Robeson—Bridge over Lumber River; Dickerson, Inc., Monroe, \$46,058.

RALEIGH—State Highway and Public Works Commission let contracts for projects in following counties:

Bladen—Proj. 2-9-27-216; Zeigler-Cline Construction Co., Fayetteville, \$57,438;

Craven—Proj. 2-9-17-204; J. F. Cleckley & Co., Orangeburg, S. C., \$24,882;

Forsyth—Proj. 2-9-71-222, 2-9-71-224; W. E. Graham & Son, Cleveland, \$41,370;

Greene—Proj. 2-9-18-208, 2-9-13-213; Shepherd Construction Co., Inc., Atlanta, Ga., \$56,157;

Hoke—Proj. 2-9-53-212; J. F. Cleckley & Co., Orangeburg, S. C., \$28,808;

Hoke—Proj. 2-9-53-211; F. D. Cline Construction Co., \$49,907;

Jones—Proj. 2-9-20-209, 2-9-20-211; Barrus Construction Co., Kinston, \$29,880;

Lenoir—Proj. 2-9-21-207; Dickerson, Inc., Monroe, \$56,503;

Lenoir—Proj. 2-9-21-212 Pr. 2; Barrus Construction Co., \$56,879;

Lenoir—Proj. 2-9-21-215, 2-9-21-219; Barrus Construction Co., \$101,570;

McDonnell—Proj. B.S. 9-6-84-128; Ballenger Paving Co., \$85,904;

Onslow—Proj. B.S. 2-6-22-107; Barrus Construction Co., \$38,916;

Pender—B.S. 3-6-33-135; Towles-Cline Construction Co., Wilmington, \$41,726;

Pitt—Proj. 2-9-24-213; Dickerson, Inc., Monroe, \$66,098;

Randolph—Proj. B.S. 6-6-56-181, Code 5900-804; Ballenger Paving Co., Greenville, S. C., \$33,408;

Richmond—Proj. B.S. 7-6-63-141; Lavender Brothers, Earl, \$172,504;

Robeson—Proj. 6-9-57-228, Code 5900-631; J. F. Cleckley, Orangeburg, S. C., \$35,016;

Robeson—6-9-57-227, B.S. 6-7-56-46, Code 5900-647; J. F. Cleckley Co., \$62,159;

Robeson—B.S. 6-6-57-175; Zeigler-Cline Construction Co., Fayetteville, \$130,416;

Rowan—7-9-64-218, Code 5900-706; Wilson Construction Co., Salisbury, \$52,938;

Rowan—7-9-64-217; Project Construction Co., Concord, \$28,165;

Wayne—4-9-33-212, 4-9-39-216, 4-9-39-218, Code 4900-111, Code 4900-428, 4900-446; Shepherd Construction Co., Atlanta, Ga., \$91,534;

Alamance—Proj. B.S. 5-6-42-135; Warren J. Mann, \$28,227;

Durham—Proj. 5-9-44-206; Sanford Construction Co., Sanford, \$43,132;

Forsyth—Proj. 8-9-71-219; Wannamaker & Wells, Inc., Orangeburg, S. C., \$78,271;

Forsyth—Proj. 8-9-71-205; N. E. Brewer Co., \$20,584;

Moore—Proj. 6-9-55-211; K. R. Benfield, Monroe, \$21,270;

Person—Proj. 5-9-48-202; K. R. Benfield, \$45,861;

Stokes—Proj. 8-9-72-208; N. E. Brewer, \$19,716;

Wake—Proj. B.S. 4-6-33-174; McMeekin Construction Co., Cheraw, S. C., \$121,347;

Forsyth and Yadin—Proj. 7422; Harvey H. Stewart, Charlotte, \$38,635;

Randolph—Proj. No. 5457; Grannis & Sloup, Inc., Fayetteville, \$179,408 for roads and E. P. Brinkley, Raleigh, \$20,394 for str.

Alexander—Proj. No. 9-101; Knight, Inc., Reidsville, N. C., \$97,914; str., Suber & Co., Whitmire, S. C., \$16,733;

Alexander-Iredell—Proj. No. 9-101; Suber & Co., Whitmire, S. C., \$135,284; str., Suber & Co., Whitmire, S. C., \$31,640;

Cleveland—Proj. No. 8256, B.S. 9-6-80-140; McMeekin Construction Co., Cheraw, S. C., \$113,761; H. M. Wannamaker & Wells, Orangeburg, S. C., \$44,000;

Durham—Proj. No. 2013, A. C. Shearer, Chapel Hill, N. C., \$80,955;

Alleghany—Proj. No. 7094, W. E. Graham & Sons, Cleveland, N. C., \$65,007;

Stokes—Proj. No. 5457; Kiker & Yount, Reidsville, N. C., \$319,540; str., F. A. Triplett, Inc., Chester, S. C., \$70,602;

WASHINGTON—Washington City School Board received low bid from J. T. Hardison & Son, \$593,390 for high school.

WASHINGTON—Washington City School Board let contract to P. S. West Construction Co., Statesville, \$485,000 for high school.

WAYNESVILLE—Haywood Electric Membership Corp. let contract to Leo T. Barber, Mulltrie, Ga., \$212,889 for distribution lines.

WINSTON-SALEM—Board of Directors of North Carolina Sanatorium received low combination bid of \$2,138,214 from Jones Brothers, Wilson, for service building, south wing addition, nurses' residence, and 5 residences for medical staff.

WINSTON-SALEM—First Baptist Church trustees let contract to Jones Brothers, \$377,050 for educational building and auditorium building.

WINSTON COUNTY—Local Government Commission, Raleigh, sold \$600,000 bond issue to Halsey, Stuart & Associates for school improvements.

WINSTON-SALEM—Winston-Salem Teachers College received low bid from Kins-Hunter, Inc., Greensboro, \$254,845 for additions to renovation of boys' dormitory.

WINSTON-SALEM—Housing Authority of Winston-Salem received low bid from Fowler-Jones Construction Co., \$1,635,351 for housing project.

OKLAHOMA

ALTUS—Public Buildings Service, General Services Administration let contract to N. O. Finch, Dallas, Tex., \$43,288 for repairs and alterations to Post Office.

ARDMORE—City let contract to S. E. Evans Co., Fort Smith, Ark., \$537,061 for water supply main.

BROWN—United States Department of Interior, Southwest Power Administration, Tulsa, let contract to Service Electric Co., Chattanooga, Tenn., \$134,617 for 138 KV switching station.

DUNCAN—Public Buildings Service, General Services Administration, let contract to J. B. Boyd Construction Co., Dallas, Tex., \$35,900 for completion of basement space. Post Office.

ENID—City plans sewer disposal plant, \$908,250.

(Continued on page 30)



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**DRAGLINE
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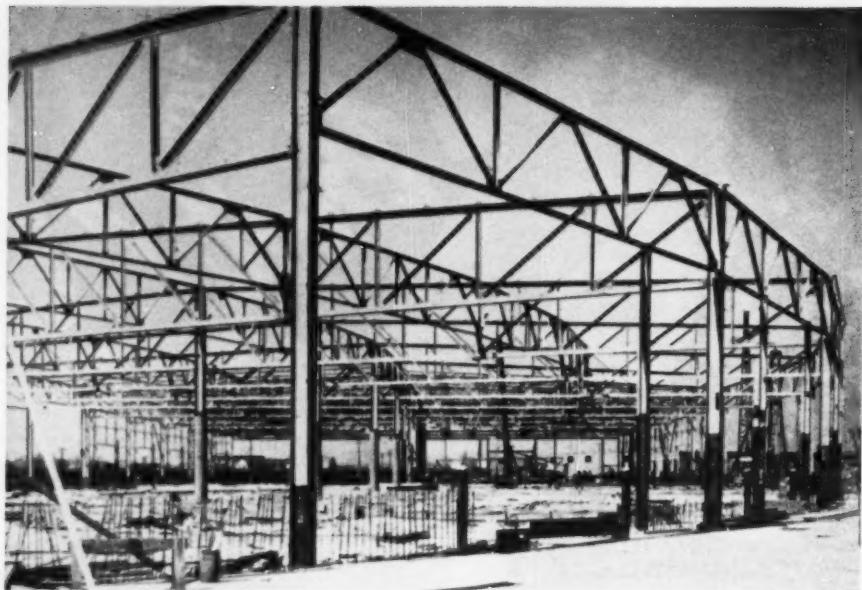
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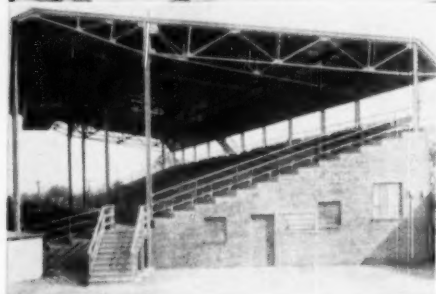
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ALL TYPES
&
ALL SIZES



Top: Transit sheds, Alabama State Docks, Mobile, Ala. Rust Engr. Company, Genl. Contrs. 1500-ton steelwork fabricated by Virginia Bridge.

Bottom: Baseball grandstand, Jacksonville, Fla. S. S. Jacobs Company, Contractors. 100-ton steelwork fabricated by Virginia Bridge.

If it's a structural steel job, regardless of size, it will fit well into our elastic plan of operations. Big or little, complicated or simple, whatever your structural steel requirements you will find at Virginia Bridge the kind of engineering, fabricating and erecting service that adds plus-value to your construction dollar. Fifty-five years of versatile experience is back of every order, and it is applied with equal care and efficiency to each job without respect to size. Whether your job calls for 100-tons or less, 1500-tons or more send us your inquiry for prompt and courteous handling.

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**States W. D. Weekley,
Miami Contractor**

W. D. Weekley, owner of Weekley Paving Company, 6695 N.W. 32nd Avenue, Miami, Florida, is one of numerous HUBER owners the country over who have found the Maintainer to be an indispensable "jack-of-all-jobs."

He uses two HUBER Maintainers as the equipment mainstays of his busy contracting operations.

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"I HAVE NEVER BACKED UP FROM ANY JOB, LARGE OR SMALL, WITH MY HUBER MAINTAINER, IN PAVING, GRADING AND EVEN CLEARING OF LOTS."

Reports from Other HUBER Owners

Board of County Commissioners, Pasco County, Florida—
"We're highly pleased with the performance of our two HUBER Maintainers. We would be glad to recommend the Maintainer to any county contemplating a machine

for general road maintenance."

W. B. Adams, Adams and Tate Construction Co., Roanoke, Virginia—"We find the HUBER Maintainer has been an exceptionally good piece of machinery."

F. H. McLean, McLean and Scott Realty Co., Knoxville, Tennessee—"I am glad to recommend the HUBER Maintainer to anyone as being entirely satisfactory in every way. It has always come through with no work stoppage."

A Profitable Investment

Only one-third the price of a heavy-duty grader, the HUBER Maintainer can do virtually ALL of your grader maintenance work. For performance and dependability, it outshines many larger, heavier and more expensive units.

The Maintainer's many front-end attachments (including grader blade, lift-loader, bulldozer, patch roller, high-way mower, road planer, berm leveler, snow plow and one-way broom) are operated with ease through smooth-acting hydraulic controls.

For complete details on HUBER'S versatile, job-proven Maintainer, contact your nearest HUBER distributor or write to the HUBER factory.

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Charleston 22, Clarkshurg, W. Va.—ROLLERS ONLY

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VIRGIL HECK EQUIPMENT CO.

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GODD ROADS SUPPLY CO., INC.

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DEMPTER BROTHERS, INC.

Machinery Division
Nashville, Knoxville, Chattanooga, Tenn.

Southern Construction Projects

OKLAHOMA

(Continued from page 26)

ENID—City plans storm sewer and extensions, \$528,291.

ENID—City plans sanitary sewer lines extensions, \$499,355.

HOWA—Oklahoma Automatic Telephone Co. plans spending and improving 437 miles of new line, rebuilding 92 miles of line and installation of modern dial equipment, \$409,000.

NORMAN—State Board of Affairs, Oklahoma City, plans additions to Central State Hospital, including men's mental ward building addition, \$531,120; women's 200-bed ward building, \$577,000; 183-bed ward for men, \$344,280; 200-bed men's ward, \$377,000.

NORMAN—City approved \$980,000 bond issue for storm sewers.

NORMAN—University of Oklahoma let contract to Manhattan Construction Co., Muskogee, \$1,898,675 for men's dormitory.

OKLAHOMA—State Highway Department, Oklahoma City, announced 1951 program estimated at \$53,716,900.

OKLAHOMA CITY—State Highway Department let contracts for projects in following counties:

LeFlore—F-34(8), U.S. 271, 5,908 miles grad., drain, 40-foot roadbed, conc. culvert; R. W. Hammock, Van Buren, Ark., \$134,134; **Kay**—U-21(6), U.S. 77, 1,113 miles grad., drain, roadbed, conc. culvert; Amis Co., \$202,393;

Kay—F-125(3), U.S. 60, 0.965 miles grad., drain, Stamey Construction Co., Oklahoma City, \$30,153;

Kay—F-125(3), U.S. 60, 0.965 miles, roadbed, conc. pvt.; Amis Co., \$54,276;

Kay—F-152(6), U.S. 60, 0.920 miles 3-inch concrete pvt.; Amis Co., \$32,730;

Kay—FAGH-152(8), U.S. 60, 0.230 mi. grad., drain, conc. culvert at approaches to Santa Fe and Rock Island Railway grade separations, Stamey Construction Co., \$67,497;

Kay—U-152(9), U.S. 60, 0.944 miles grad., drain, roadbed, conc. 2 conc. culverts; Amis Co., \$218,166;

Osage—F-152(10), U.S. 60, 2,818 miles grad., drain, 40-foot roadbed; Stamey Co., \$96,445;

Osage—F-152(10), U.S. 60, 2,818 miles 8-inch conc., Amis Co., \$188,499.47;

Elaine—SAP-279(1), Pt. 2, S.H. 8, 7,733 miles grad., drain, 36-foot roadbed, conc. culvert; Keck, \$124,740;

Atoka and Pittsburg—FAGH-289(4), U.S. 69, 0.524 miles grad., drain, roadbed, 120-foot I-beam span overpass at M.K. & T. railway; W. E. Logan and Sons, Muskogee, \$108,476.63;

Wagoner—F-302(6), S.H. 51, 4,792 miles grad., drain, 36-foot roadbed, \$87,030; F. L. Gaines & Sons, Miami, \$73,866;

Washington—6,653 miles grad., drain, 28-foot roadbed, gravel surf., Gaines & Sons, Miami, \$36,820;

Noble and Payne—Proj. S-360(4) Pt. 1, S.H. 86, 7,851 mi. grad., drain, 26-ft roadbed; Clark Construction Co., Pawnee, \$40,421;

Noble—S-360(4) S.H. Pt. 2, S.H. 86, 3,349 miles like construction and 2 conc. culverts; Clark Co., \$69,505;

Noble-Payne—S-360(4) S.H. Pt. 1, S.H. 86, 7,851 miles 6-inch asphalt stabilized base, bituminous pvt.; Ryan-Richards Co., Oklahoma City, \$104,292;

Noble—S-360(4) S.H. Pt. 2, S.H. 86, 3,349 miles like construction; Ryan-Richards, \$62,097;

Payne—SAP-423(1), S.H. 33, 0.271 miles grad., drain, 38-foot roadbed conc. pvt., 190-foot I-beam span, dual steel truss bridge over Big Creek; Amis Co., \$100,052;

Haskell-Pittsburg—S-433(3), new S.H. 31, 2,907 miles grad., drain, roadbed, 0.749 miles 36-foot bituminous pvt., in Quilston, 1,258 miles 24-foot gravel surf.; Anderson Construction Co., McAlester, \$29,086;

Cherokee—SAP-442(2), S.H. 51, 6,452 miles grad., drain, roadbed, stabilized base, bituminous pvt.; Public Construction Co., Muskogee, \$135,999;

Cherokee—S-681(1), S.H. 10, 3,887 miles grad., drain, 28-foot roadbed, 6 conc. culverts, \$172,974; Amis Co., \$163,415;

Cherokee—S-681(1), S.H. 10, 3,837 miles stabilized aggregate base, bituminous pvt.; Public Co., \$77,895;

Beaver—S-463(2) S.H. Pt. 1, S.H. 15, 7,291 miles grad., drain, roadbed, caliche base, bituminous pvt., 2 conc. culverts, repairs to 2 bridges; Tex. Baughman Construction Co., Oklahoma City, \$215,501;

Beaver—S-463(2) S.H. Pt. 2, S.H. 15, 7,291 miles grad., drain, roadbed, caliche base, bituminous pvt., 2 conc. culverts, repairs to 2 bridges; Tex. Baughman Construction Co., Oklahoma City, \$215,501;

Beaver—S-453(2) S.H. Pt. 2, S.H. 15, 1,043 miles like construction, Baughman Co., \$26,508;

Squoyah—SAP-873(2) Pt. 1, U.S. 59, 6,875 miles grad., drain, roadbed, stabilized aggregate base bituminous pvt.; Layman & Sons, Tulsa, \$155,600.94;

Squoyah—SAP-873(2) Pt. 2, U.S. 59, 1,843 miles like construction; Layman & Sons, \$34,747;

Garvin—SAP-1032(2), S.H. 29, 0.141 miles grad., drain, roadbed, gravel surf., 120-foot I-beam span bridge on Honey creek; Moore Co., \$34,273;

Haywood-Tipton-Fayette—Proj. SAP-909-A, Widening and resurf. section of Hwy. 1, 24.0 mi. J. B. Michael & Co., Inc., Memphis, \$669,826;

Coke—Proj. Nos. R-3028, grade, drain, base, prime, S.B. St., 6.6 mi.; Proj. R-3026(2) & R-3046(2), 3.4 mi.; Bullard Paving Co., Greenville, \$46,875;

Benlon—Proj. R-9004(2), prime, S.B. St., 11.8 mi.; Inter-State Construction Co., \$25,673;

Kay—F-125(3), U.S. 60, 130-foot I-beam span bridge, 175-foot concrete slab span bridge, conc. culvert on Bois D'Arc creek; Amis Co., \$78,126;

Kay—FAGH-152(8), U.S. 60, 267-foot and 110-foot I-beam span overpasses and timber trestle service road overpass; Moore Co., \$18,818;

Kay—FAGH-152(8), U.S. 60, 0.226 mile 8-inch conc. pvt. at approaches of overpasses, \$21,516; Amis Co., \$20,621;

Wagoner—F-302(6), S.H. 51, 2 conc. culverts on Elm and Rosa creeks and 150-foot I-beam span bridge on Billy Creek; Roberts & Scisson, Tulsa, \$71,398;

OKLAHOMA CITY—University Board of Regents, Norman, let contract to Dunning Construction Co., Oklahoma City, \$1,264,431 for 8-story and basement addition to University Hospital.

OKLAHOMA CITY—City sold \$6,500,000 in limited access facility bonds to group headed jointly by Halsey, Stuart & Co., Inc., and Gore, Forgan & Co.

STAPLE—State Board of Affairs, Oklahoma City, plans buildings at Western State Hospital, \$1,624,229.

TULSA—City let contract to M. E. Gillioz, Mont. Missouri, \$702,740 for constr. of second Spavinaw Proj., crossing of Grand River.

TULSA—City plans final projects including clearing upper dam reservoir, Spavinaw Dam project, and site construction, \$140,000; removal of cemeteries for reservoir area \$35,000 and Tiawah Tunnel approach, \$120,000.

TULSA—City received low bid from Standard Paving Co., \$155,356 for paving 17th Place from Lewis to Columbia Ave., Atlanta and Birmingham Aves. from 20th to 21st Sts. and Columbia Ave. from 17th Place to 21st St.

TULSA—City Commission received low bid from Guy H. James Co., Oklahoma City, \$2,407,505 for upper Spavinaw Dam project in Delaware County.

TULSA COUNTY—Tulsa Independent School District No. 1 sold \$3,000,000 bond issue to Halsey, Stuart & Co., Inc. & Associates for school improvements.

WOODWARD—Northwestern Electric Cooperative, Inc., let contract to Sisco Electric Co., P. O. Box 88, Conroe, Texas, at \$288,926 for 328.5 miles of line to serve 340 members plus the conversion of 9.5 miles of line; C. H. Guernsey & Co., 1414 N. Robinson, Oklahoma City 3, Okla., Engr.

SOUTH CAROLINA

CAMDEN—Bethesda Presbyterian Church let contract to Pine Tree Building & Supply Co., \$38,995 for addition to church.

CHARLESTON—Friedman Finishing Co., subsidiary of United Merchants and Manufacturers, Inc., New York, plans textile plant on land along Broad River near Charleston, cost of first unit, \$15,000,000.

CHARLESTON—Dorner Engineering Co., Charleston, has general contract, \$157,777 for church for Grecian Society of Charleston; R. Guastavino Co., Boston, Mass., \$29,150 for dome.

CHARLESTON—Hewitt Oil Co. let contract to Dawson Engineering Co., \$61,988 for store to be leased to Dixie-Home Stores.

CHARLESTON—St. Luke and St. Paul received low bid from Dorner Engineering Co., \$123,777 for parish house.

CHARLESTON—Charleston County Council plans 75-bed tuberculosis hospital, \$900,000.

CHESTER—Board of Education let contract to S. A. Pope, \$89,523 for two schools.

COLUMBIA—J. C. Gregg St., Inc., let contract to Atlantic Building Corp., \$65,824 for doctor's building.

COLUMBIA—Lumpkin Holding Co. received low bid from C. G. Shockley Construc-

tion Co., \$497,791, for Coca-Cola Bottling plant, garage and warehouse.

COLUMBIA—Trinity Episcopal Church let contract to J. C. Heslep, \$140,409 for addition to parish house.

COLUMBIA—Columbia Real Estate & Trust Co. received low bid from Frank W. Lamotte, \$76,700 for parking elevator.

COLUMBIA—Board of School Commissioners let contract to M. B. Kahn Construction Co., \$42,996 for dressing rooms, shower rooms, toilets, ticket booth, press box and concrete block walls for stadium.

CONWAY—Horry Electric Cooperative plans 105 miles of new distribution line, system improvements and completion of previously approved construction, \$220,000.

FLORENCE—City let contract to Harlee-Quattlebaum Construction Co., \$72,500 for central fire station.

FLORENCE—City sold \$1,000,000 bond issue to Shields & Co., Hornbriar & Weeks & Alester G. Furman & Co., for water and sewer improvement.

FORT JACKSON—Corps of Engineers, Savannah, Ga., let contract to Henry A. Ivey, Inc., Atlanta, Ga., \$90,547 for renovation of miscellaneous buildings.

FORT MONROE—Board of Township Commissioners of Sullivan's Island let contract to Charleston Constructors, Inc., \$90,541 for sewer system.

GEORGETOWN—Seacoast Telephone Co. received low bid from William Thompson, \$34,141 for telephone exchange building.

GEORGETOWN—Corps of Engineers, Charleston, received low bid from Arundel Corp., Baltimore, Md., \$274,228 for dredging Sampit River.

GEORGETOWN—Corps of Engineers, Washington, D. C., allocated \$480,000 for Georgetown Harbor, Va.

GREENVILLE—Woodside Mills, Greenville Plant, let contract to Potter-Shackelford Construction Co., Greenville, \$74,240 for gymnasium.

GREENVILLE—Greenville Airport Commission let contract to Peden Construction Co., \$178,853 for Schedule I, for airport improvements and extensions to runways, Sloan Construction Co., Inc., \$75,338 for Schedule II; Gilbert Engineering Co., Statesville, for Schedule III; Webb Electric Co., Anderson, at \$22,175 for Schedule IV.

GREENVILLE—Parker School District approved \$750,000 bond issue for school improvements.

GREENWOOD—Brookside Court, Inc. let contract to Taylor Construction Co., Columbia, \$294,400 for apartments.

GREENWOOD—Connie Maxwell Children's Home let contract to C. Y. Thomason Co., \$129,000 for 2 cottages.

HONKA PATH—Town Council let contracts for sanitary sewer extensions and water distribution extensions, Section I, \$78,860 and Section II, J. C. Bledsoe, Blytheview, \$12,382.

KINGSTREE—M. L. Few received low bid from Todd Engineering & Supply Co., \$50,008 for dwelling.

SANTÉE—H. M. Gaskins let contract to Evans Construction Co., Cameron, \$40,000 for motor court.

SPARTANBURG—Spartanburg Housing Authority received low bid from McKoy-Helgerson Construction Co., Greenville, \$1,036,000 for demolition and removal of structure on site of low rent housing SC-33.

SUMMERVILLE—Board of Trustees, Dorchester County, received low bid from M. L. Stephenson, combination bid of \$13,645 for Summerville Elementary School and Alston High School.

WILLIAMSTON—City received low bid from Cream Coultter & Co., Columbia, \$78,469 for water filtration plant.

WILLIAMSTON—Williamston Cloth Mill, unit of Texton Southern, plans \$1,000,000 addition.

TENNESSEE

ATHENS—Board of Education let contract to W. H. Hamey Construction Co., \$145,300 for Athens School.

CHATTANOOGA—Tennessee Valley Authority approved \$3,352,100 contract to American Bridge Co., Cincinnati 1, Ohio, for Highway bridge across Chickamauga Dam.

CHATTANOOGA—Board of Education received low bid from John Martin Co., \$93,460 for addition to academic hall at Baylor School.

HARDIN COUNTY—Hardin County sold \$700,000 bond issue to Phil & Co. of Cincinnati for court house.

KNOXVILLE—Knoxville Utilities Board let contract to V. L. Nielson Co., \$343,861 for office annex, Gay St.

(Continued on page 34)

JOB PROVED...

10-Ton "EUC"

Emerging from a tunnel which leads to an underground loading area, this Model UD starts up the haul road to the crushing plant at C. A. Langford Stone Company in Tennessee.



The Acme Construction Company uses this 10-Ton Rear-Dump on a highway construction job at Mateoka, W. Va. The "Euc" is loaded with earth and shale by a 1 1/4 cu. yd. shovel.



Powered by a 125 h.p. diesel engine, the Model UD has a top speed of 35.7 m.p.h. and plenty of power for steep grades. The 360' haul road at the C. A. Langford quarry near Cookeville, Tenn., has a maximum grade of 10%.



High dumping angle and fast-acting Euclid hoist assure quick dumping. Here the "Euc" dumps a capacity load of limestone into crusher at the H. & K. Stone Company quarry at Ridgeville, Ind.

Built for jobs requiring a smaller capacity hauling unit for heavy off-the-highway service, the 10-Ton Rear-Dump Euclid has made good ... hauling more tons at less cost in mines, quarries, construction and industrial work. Owners like the Model UD because it is easy to handle ... has ample power and speed ... and can do a wide range of jobs economically.

You can depend on the 10-Ton Euclid for greater job profits and long service life. Your Euclid distributor will be glad to discuss your job requirements ... write or call him today for information on the Model UD Rear-Dump or the complete line of Euclid earth moving equipment.

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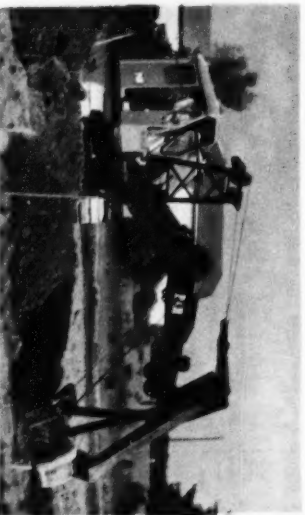
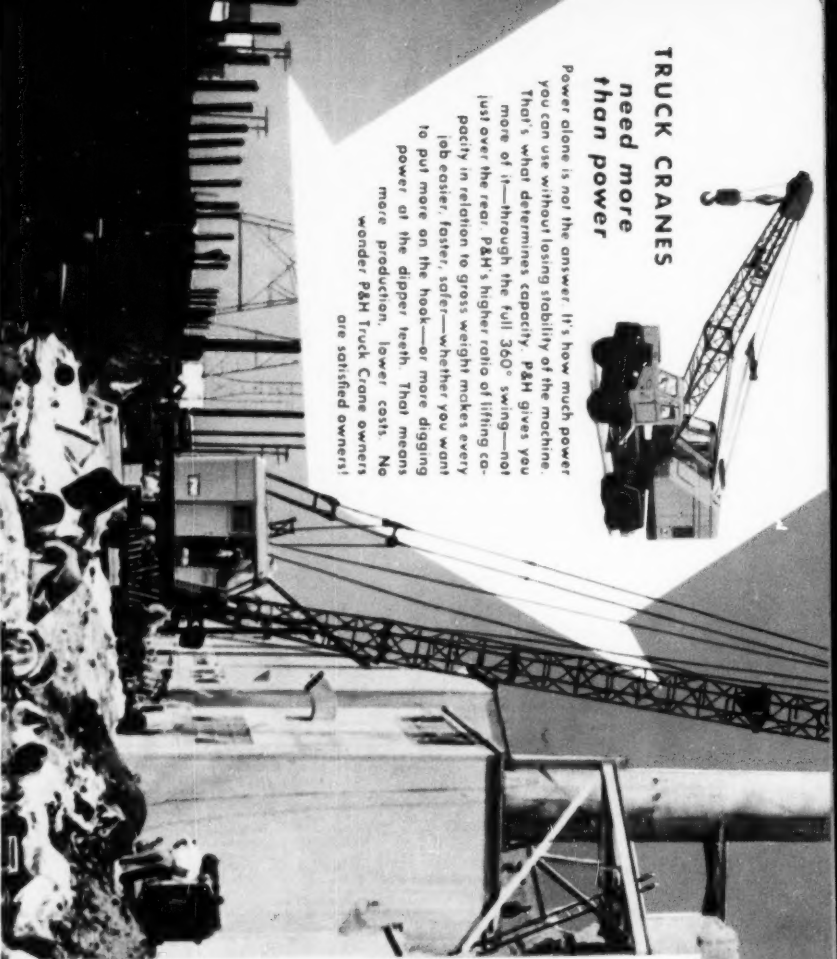
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Power alone is not the answer. It's how much power you can use without losing stability of the machine. That's what determines capacity. P&H gives you more of it—through the full 360° swing—not just over the rear. P&H's higher ratio of lifting capacity in relation to gross weight makes every job easier, faster, safer—whether you want to put more on the hook—or more digging power at the dipper teeth. That means more production, lower costs. No wonder P&H Truck Crane owners are satisfied owners!



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An outstanding success with many new operating advantages: 50% faster hoist speeds... greater digging depth... greater dumping height... more digging power. No dirt when hoisting clumps of spillage. Longer cut means fewer moves. Power-operated ladders. Attachment is quickly installed. Get all the Added Value news about this newer, better trench hoe.

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Knoxville, Tennessee
CROW IRON WORKS
Edinburg, Texas
DRAINAGE MACH. & SUPPLY CO.
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Birmingham 4, Alabama
NEFF THOMAS MACHINERY CO.
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RISH EQUIPMENT CO.
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RISH EQUIPMENT CO.
Bluesfield, West Virginia

RISH EQUIPMENT CO.
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RISH EQUIPMENT CO.
Richmond, Virginia
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Southern Construction Projects

TENNESSEE

(Continued from page 30)

KNOXVILLE—City received low bid from V. L. Nicholson Co., \$639,192 for stadium.

MEMPHIS—E. I. duPont de Nemours and Co., Inc., Wilmington, Del., plan chemical plant, \$7,500,000.

NASHVILLE—William C. Weaver, Jr. and W. H. Cresswell plan \$2,000,000 shopping center for Hillsboro road sector.

NASHVILLE—Tennessee Natural Gas Lines, Inc., let contract to N. A. Smith Co., San Antonio, Texas, \$750,000 for feeder lines.

NASHVILLE—Department of Highways received low bids for projects in following counties:

Crockett—Proj. S-8049(1): grad., drain., and surf. with gravel or chert, Sec. Hwy. 5019, 3.583 mi.; W. A. Ledbetter, Lexington, \$37,919.

Dyer—Proj. S-8077(1): Grad., drain. and surf. with crushed stone, gravel or chert, 5.416 mi.; Anderson-Gregory, Nashville, \$42,870.

Fentress—Proj. S-4240(1): grade, drain and surf. with crushed stone, 2.999 mi.; Frogge & Williams, Jamestown, \$27,159.

Grundy—Proj. S-4342(2): grad., drain. and surf. with crushed stone, gravel or chert and box type bridge, 0.231 mi.; John L. Brinkley, Shelbyville, \$15,930.

Hancock—Proj. S-2349(6): grade, drain. and surf. with crushed stone, gravel or chert and 2-slab type bridges, 5.034 mi.; Malone Brothers, Greenville, \$73,994.

Gibson—Proj. S-4341(2): grad., drain., widening and resurf. and sidewalk, 0.942 mi.; Forcum-James, Dyersburg, \$104,489.

Lewis—Proj. S-4902-A: grad., drain. and surf. with crushed stone, gravel or chert and 4 bridges, 5.288 mi.; Chandler Brothers, Inc., Virgilina, \$257,089.

Marion—Proj. S-4903-A: grade, drain. and surf. with crushed stone, gravel or chert, 12.255 mi.; Chandler Brothers, Inc., \$366,106.

Weakley—Proj. S-4911-A: grade, drain., 13.671 mi.; Forcum-James, \$225,711.

Gibson—Proj. S-4912-A: grade, drain., Rt. 118, 13.671 mi.; Forcum-James Co., Dyersburg, \$174,923.

Cooke—Proj. R-3244-(2), R-3243-(2), & R-3245-(2); Bullard Paving Co., Greenville, \$10,439.

Jefferson—Proj. R-3078-(1), R-3079-(1); A. B. Long, Harriman, \$33,550.

Sevier—Proj. R-3246-(1), R-3105-(2), R-3269-(2), R-3228-(2), R-3229-(2), R-3113-(2), R-3106-(2) and R-3104-(2); Griffiths-Bell, Knoxville, \$63,595.

Fayette and Shelby—Proj. S-4909-B: widening and resurf. section of Hwy. 11, Rt. 13.612 mi.; J. B. Michael & Lehman-Roberts, Memphis, \$656,410.

Henderson—Proj. S-4909-B: underpass and approaches over C. & St. L. Railway on resection of Rt. 22, 0.254 mi.; Forcum-James, Dyersburg, \$86,218.

Lauderdale and Crockett—Proj. S-4901-A: bridge and approaches over S. Fork Forked Deer River in Rt. 3, 0.393 mi.; Forcum-James Co., \$213,698.

Wilson and Sumner—Proj. S-4902-A: bridge over Cumberland River, 0.259 mi.; J. M. Hickman, Harriman, \$644,114.

Shelby—Proj. S-4913-A: embankment and rip rap at North abutment of bridge over Wolf River, Hwy. 3; Pioneer Contracting Co., Memphis, \$41,701.

NASHVILLE—Department of Highways and Public Works let contracts for projects in following counties:

Marion and Hamilton—Proj. S-4904-A: widening and resurf. section of Hwy. 2, Hwy. 2 and 28, 13.61 mi.; Wesco Paving Co., Chattanooga, \$357,567.

Fulton and Cumberland—Proj. S-4906-A: widening and resurf. section of Hwy. 24, 23.0 mi.; Gamble Construction Co., Chattanooga, \$450,434.

Cheatham and Robertson and Montgomery—Proj. S-4907-A: widening and resurf. section of Hwy. 112, 27.46 mi.; Sam Finley, Inc., Atlanta, Ga., \$713,888.

Williams and Davidson—Proj. S-4908-A: widening and resurf. section of Hwy. 21, 21.40 mi.; Warren Brothers Roads Co., Nashville, \$441,405.

SPARTA—W. W. Turner Co., Const. Engrs., Nashville, expect to have plans complete in about 30 days for extension of sanitary sewers estimated, \$80,000.

TELAHOMA—Corps of Engineers let contract to S. Paul Construction Co., Massman Construction Co., Kansas City and McDonald Construction Co., St. Louis, Mo., \$4,127,458 for engine testing facilities, Arnold Engineering Development Center.

TELAHOMA—U. S. Engineer Office, Box 2691, let contract to Rust Engineering Co., Birmingham, Ala., \$3,000,000 for mechanical

and electrical work for high altitude engine test facilities, Arnold Engineering Development Center.

TEXAS

TEXAS—State Highway Commission, Austin, plans primary federal aid highway system work to start \$60,000,000.

TEXAS—State Highway Commission, Austin, authorized appropriation of \$500,000 for center striping work on highways during coming year.

TEXAS—State Highway Commission, Austin, authorized projects in following counties:

Calhoun—finder system on Lavaca Bay Causeway, Hwy. 35, \$32,000.

Jefferson and Orange—complete substructure of Neches River bridge on Hwy. 90, \$79,200.

Navarro—widen U.S. 75 in Corsicana, 1.4 mi., \$222,000.

Hockley—pavt. widening on Farm-to-Market Rd. 300 in Sundown, \$52,000.

Arañas—reconst. of surf., 2.8 mi. of Farm-to-Market Rd. 136, \$33,000.

San Patricio—reconst. of surf., 7.6 mi. of Farm-to-Market Rd. 136, \$102,000.

Delugio—reconst. of surf., 6 mi. of Farm-to-Market Rd. 136, \$102,000.

Bexar—connection in city extending from point on South Presa St. near its intersection with Hicks Street, thence along Hicks St. to near Roosevelt Ave., thence on new location in northwesterly direction to Probandt St., thence along Probandt St., South Alamo and Herff Streets to South Flores St., \$780,000.

Alamo—widen U.S. Hwy. 277 in Stamford, 1.6 mi., \$40,000.

AUSTIN—City plans \$10,000,000 school building program for five-year period.

AUSTIN—City plans \$3,500,000 expenditure for bridges, road sewers and street paving.

AUSTIN—City plans \$2,350,000 sanitary sewers.

AUSTIN—City plans \$2,983,000 water system improvements.

State Highway Commission Austin, let contract for projects in following counties:

Swisher—Proj. C-67-263-10&13, Hwy. U.S. 87, 0.641 mi., flex. base and triple asphalt surf. treat. Kerr & Middleton, Lubbock, \$20,776.

Montgomery—R-1416-2-1, Hwy. FM 1486, 5.841 mi., grad., str., flex. base and 1-course surf. treat. Howard Brothers, Madisonville, and B. Butler, Inc., Bryan, \$119,686.

Dawson—R-354-7-1, Hwy. FM 703, 11.314 mi., grad., str., flex. base and 2-course surf. treat.; Long, 11.314 mi., Ernest Loyd, Ft. Worth, \$87,536.

Bexar—Cont. No. 17-10-2, Fed. Proj. No. U-1083(10), Hwy. U.S. 81, 0.647 mi., grad., str., and pavt.; Killian-House Co., San Antonio, \$1,672,499.

Potter—Cont. No. 90-5-14&15, Fed. Proj. FG-1643(11), & FG-1643(12), Hwy. 66, 1.666 mi., grad., drain, str. and grade separation, CRI T. P. R. underpass, Bell, Braden Barker & Gilvin, Inc., Amarillo, \$188,587.

Fanning and Hunt—RV-1488-1-1, RV-1097-2-1, V-279-6-1 & R-1097-1-2, Hwy. FM 1553, 816 & 1491.792 mi., grad., drain, str., base and surf.; R. W. McKinney, Nacogdoches, \$148,377.

Stephens—R-1160-2-1, Hwy. FM 1181, 6.338 mi., grad., str., flex. base and 1-course surf. treat.; Harris Campbell, Ft. Worth, \$36,508.

Kerr—R-829-4-1, Hwy. FM 1330, 10.440 mi., grad., str., flex. base and 1 and 2-course surf. treat.; R. I. C. Contractors, Bandera, \$29,840.

Lavaca—C-446-1-5, Hwy. S.H. 200, 0.549 mi., grad., str., flex. base and asphalt conc. pavt.; The Jarbet Co., Inc., San Antonio, \$37,059.

Freestone—F-78(3), Hwy. U.S. 75, 14.918 mi., hot mix asphalt conc. pavt.; Public Construction Co., Denton, \$188,398.

Jasper—R-1419-1-1, Hwy. FM 1408, 5.356 mi., grad., str., flex. base and 1-course surf. treat.; Glene Hanson, Houston, \$81,053.

Eastland—FT-19(9), Hwy. U.S. 80, 6.596 mi., grad., str., flex. base and asphalt conc. pavt.; T. C. Caze, San Antonio, \$261,509 (alt.).

Gonzales—Cont. No. 13-172, 13.172 mi., grad., widen str., roadbed treat. and asphalt surf. treat.; M-J Construction Co., Inc., Beeville, \$273,107.

Wilbarger—F-276(5), Hwy. U.S. 287, 0.622 mi., grad., str., flex. base and 2-course surf. treat.; Stephen Luce & A. L. Sheppard, Vernon, \$28,402.

Carson—Proj. 2-788-2-3, Hwy. FM 294, 6 mi., grad., drain, str., found. course and 1-course surf. treat.; Ernest Loyd, Ft. Worth, \$50,266.

Johnson—F-20(6), 7FG-20(7), Hwy. St. 174, 6.508 mi., grad., drain, str., flex. base and double asphalt surf. treat. and G.C. & S.R.R.R. overpass, T. C. Caze, San Antonio, \$490,009.

Uvalde—V-1169-1-1, Hwy. FM 1050, 14.719 mi., grad., drain str., flex. base and 1-course surf. treat.; T. C. Caze, San Antonio, \$143,523.

Franklin—S-1380-1-1, Hwy. FM 1448, 2.808

mi., grad., str., flex. base and 1-course surf. treat.; Dew Construction Co., Inc., Tyler, \$31,414.

Denton—R-816-2-3, R-1310-2-1 & 1315-1-1, Hwy. FM 125, 138 & 135, 13.145 mi., grad., str., stab. found. course and 1-course surf. treat.; Uvalde Construction Co., Dallas, \$163,691.

Willacy—R-841-2-1, Hwy. FM 952, 4.463 mi., grad., str., roadbed treat. and 1-course surf. treat.; South Texas Construction Co., Corpus Christi, \$59,220.

Taylor—R-677-2-1, Hwy. FM 708, 4.550 mi., grad., str., flex. base and 1-course surf. treat.; Harry Campbell, Ft. Worth, \$37,487.

Navarro—R-719-2-2, Hwy. FM 11-29, 4.380 mi., grad., str., drain.; Fred Hall & Son, Valley Mills, \$46,529.

Hidalgo and Willacy—V-1228-2-1, R-1228-1-1, R-1228-2-2, V-1236-2-1 and R-1430-1-1, Hwy. FM 1015, 1422 & 1432, 16.176 mi., grad., str., flex. base and 1-course surf. treat.; E. B. Darby & Co., Pharr, \$237,514.

Schleicher—R-558-12-2, Hwy. RM 33, 14.008 mi., grad., str., base and 2-course asphalt treat.; M. E. Ruby, Marcos, and W. L. Barnes, Austin, \$120,736.

Hill—R-1190-1-3 & V-1190-1-1, Hwy. FM 933, 7.691 mi., grad., str., and found. course; Ernest Loyd, Ft. Worth, \$81,960.

Dallas—Cont. C-47-7-27 & C-92-4-8, Hwy. U.S. 75, 1.23 mi., resurf. and drain. of Central Expressway; Texas Bitulithic Co., Dallas, \$57,100.

Hopkins—Cont. C-766-2-2, Hwy. FM 270, 3.163 mi., grad., str., flex. base and 1-course surf. treat.; Dew Construction Co., Tyler, \$17,913.

Menard—Proj. R-1296-1-1, Hwy. FM 864, 5.951 mi., grad., str., flex. base and 2-course surf. treat.; M. E. Ruby & W. L. Barnes, San Marcos, \$59,744.

Jasper—Cont. R-917-3-1, Hwy. FM 1407, 3.071 mi., grad., str., flex. base and 1-course surf. treat.; Ernest L. Mays, Jasper, \$41,827.

Mason—Cont. C-328-5-10, Hwy. S.H. 79, 10.530 mi., 1-course surf. treat.; Thomas & Ratliff, Rogers, \$10,977.

Polk—Cont. 176-2-22 & 177-1-20, Fed. Proj. F-134(18), Hwy. U.S. 59, 1.268 mi., grad., drain, widening, culverts, flex. base and asphalt conc. pavt.; Austin Road Co., Dallas, \$104,510.

McLennan—Proj. F-605(13), Hwy. U.S. 64, 0.455 mi., grad., str., treat. and conc. pavt.; Worth Construction Co., Ft. Worth, \$233,044.

Fanning—Proj. RV-765-2-3, Hwy. FM 274, 5.080 mi., grad., drain, str., stab. found. course and 2-course surf. treat.; Ernest Loyd, Ft. Worth, \$55,740.

Cottle—Proj. R-1348-1-1, Hwy. FM 1440, 8.728 mi., grad., str., flex. base and 1-course surf. treat.; Cooper & Woodruff, Dallas, \$87,200.

Anderson—Proj. R-458-3-2, Hwy. FM 860, 5.912 mi., grad., str., flex. base and 1-course surf. treat.; R. N. Adams, Kaufman, \$63,709.

Albany—Proj. S-4909-B, R-1492-2-1, Hwy. FM 1444 & 1445, 8.122 mi., grad., str., flex. base and 1-course surf. treat.; H. R. Henderson & Co., Marshall, \$100,533.

Brazos—Proj. R-540-5-2, Hwy. FM 159, 8.814 mi., grad., drain, str., and roadbed treat.; F. C. Herrling, Kurten, \$61,602.

Crosby—Proj. RV-1462-1, RV-800-3-2, RV-1254-1-1, RV-1541-2, R-1254-1-3, & R-1254-2-1, Hwy. FM 378, 152 & 1063, 22.441 mi., grad., str., flex. base and 2-course surf. treat.; J. R. Fanning, Lubbock, \$196,846.

Ford Bend—R-836-2-1, Hwy. FM 412, 6.650 mi., grad., str., soil asphalt base and 1-course surf. treat.; Southern Contracting Co., Austin, \$128,215.

Howard—Proj. R-548-4-1, Hwy. FM 87, 1.872 mi., grad., str., flex. base and single asphalt surf. treat.; Strain & Brown, Inc., San Angelo, \$20,982.

Kaufman—R-1217-3-1 & R-197-11-2, Hwy. FM 1388 & 1390, 7.911 mi., grad., str., flex. base and 1-course surf. treat.; Joe Davidson, Terrell, \$124,888 (alt.).

Zavalla—R-236-3-4, Hwy. FM 117, 13.766 mi., grad., str., flex. base and 1-course surf. treat.; Thomas & Ratliff, Rogers, \$119,520.

Hunt—S-1035(2), Hwy. FM 513, 1.410 mi., grad. and drain str.; Joe Davidson, Terrell, \$170,090.

Collin—R-816-5-1, Hwy. FM 1776, 6.888 mi., grad., str., stab. found. course and 1-course surf. treat.; R. W. McKinney, Nacogdoches, \$113,603 (alt. 2).

Newton—R-1309-1-3, R-304-8-4, Hwy. FM 1154-1114 & 1415, 10.581 mi., grad., str., flex. base and 1-course surf. treat.; Menefee Brothers & Alford, Center, \$135,955.

Bexar—R-613-3-2, R-1479-1-1, Hwy. FM 1518, 346, 7.200 mi., grad., str., flex. base and 1 and 2-course surf. treat.; M. E. Ruby, San Marcos, \$52,216.

Jefferson—R-586(11), Hwy. FM 963, 8.614 mi., grad. and small str.; R. C. Burkner, Jackson, \$111,257.

Ipcher—R-946-3-2 & R-1386-1-1, Hwy. FM 593 & 1404, 8.598 mi. grad. str., flex. base and 1-course surf. treat.; Dave McCollough, Mt. Pleasant, \$90,096.

Atascosa—R-1331-3-1, V-1431-1-1, V-1431-2-2, C-326-5-9 & C-326-6-8, Hwy. FM 140, 1549 & SH 97, 10.835 mi. grad. str., flex. base and asphalt surf. treat.; J. M. Dellinger, Inc., Corpus Christi, \$110,221 (alt.).

Falls—R-752-1-1 & R-808-3-3, Hwy. FM 935 & 1048, 9.670 mi. grad. str., and roadbed treat.; Fred Hall & Son, Valley Mills, \$70,708.

Potter—R-643(14), Hwy. U.S. 66, 1.704 mi. grad. str., flex. base and asphalt conc.; Bell, Brade, Barker & Gilvin, Inc., Amarillo, \$138,415.

Mclennan and Falls—R-1372-1-1 & 2-1 & 1, Hwy. FM 2139, 7.446 mi. grad. str., and roadbed, course; Holland Page, Austin, \$78,383.

Hurleson—R-113-1-1, Hwy. FM 976, 3.949 mi. grad. str., and roadbed treat.; E. R. Reed, Tyler, \$25,868.

Cherokee—R-1387-2-1, Hwy. FM 2147, 5.537 mi. grad. str., flex. base and 1-course surf. treat.; E. C. Buckner & Sons, Cleburne, \$66,668.

AUSTIN—City Planning Department received low bids for projects in following counties:

Rains—FM 514, R-770-2-1, Gr. Strs., Fnd. Crs. & Asp. Surf.; R. W. McKinney, Nacogdoches, \$56,069.

Shelby—FM 417, R-810-1-2, Gr. Strs., Flex. Bs. & 1-Crs. surf. treat.; McCullin-Burkett Construction Co., Houston, \$39,233.

Lamar—FM 906, V-769-2-2, Gr. Strs., Flex. Bs. & 2-Crs. surf. treat.; L. W. Pelphrey Co., Gladewater, \$44,602.

Frio—FM 1592, R-1100-1-1, Gr. Strs., Flex. Bs. & 2-Crs. surf. treat.; McKown & Sons, Austin, \$66,387.

Collin—FM 1378 & 1379, R-1392-1-1 & R-1392-1-2, Gr. Strs., Flex. Bs. & 2-Crs. surf. treat.; R. W. McKinney, Nacogdoches, \$141,018.

Waller—FM 1489, R-1418-1-1, Gr. Strs., Flex. Bs. & 1-Crs. surf. treat.; Brown & Root, Inc., Houston, \$84,716.

Young—FM 209, R-1076-2-2 & R-1076-2-3, Gr. Strs., Flex. Bs. & 2-Crs. surf. treat.; Ned B. Hoffman, Fort Worth, \$133,423.

Comal—FM 1357, R-1433-2-1, Gr. Strs., Flex. Bs. & 2-Crs. surf. treat.; E. E. Hood & Sons, San Antonio, \$35,734.

Bexar—U.S. 81, U-1083(11), Gr. Strs. & Pavt.; Austin Bridge Co., \$134,746.

Hill—U.S. 81, R-113(11), P-130(12), FG-113(13) & FI-447(3), Gr. Strs., Rdbd. Trt. Conc. Pavt. & MKT RR & Old U.S. 77 U.P.; Austin Bridge Co. & North Construction Co., Dallas & Fort Worth, \$84,716.

Oldham & Hartley—S.H. 51 & Spur 233, S-1510(2) & (2), Gr. Strs., Flex. Bs. & Asp. Surf. Treat.; Strain & Brown, Inc., San Antonio, \$287,070.

Real & Kerr—S.H. 39, S-639(2) & (3), Gr. Strs. & Flex. Base.; E. E. Hood & Sons, San Antonio, \$108,468.

Red River—R-1159, S-1385(1), grad. str., flex. base and 2-course surf. treat.; Dew Construction Co., Tyler, \$76,529.

San Saba—FM 45, S-931(4), grad. str., flex. base and 1-course surf. treat.; Killian-Keller, San Antonio, \$33,854.

Hamilton—FM 1241, R-550-8-1, grad. str., foun. course and 1-course surf. treat.; H. B. Zachry, San Antonio, \$100,889.

Live Oak—FM 1398, R-126-1-1, grad. str., foun. course and 2-course surf. treat.; D. R. Cloud & Son, San Antonio, \$84,035.

Galveston—S.H. 87, C-367-5-8, replacing dr. str.; Austin Bridge Co., Dallas, \$15,010.

Grayson—U.S. 75, C-47-3-16, grad. str., flex. base and hot-mix asp. conc. pvt.; City Construction Co., Dallas, \$454,476.

McClulloch—FM 42, R-129-1-4, grad. str., foun. course and 1-course surf. treat.; Killian-Keller Co., San Antonio, \$69,933.

Palo Pinto—FM 1193, R-736-1-2, grad. str., flex. base and 2-course surf. treat.; Ernest Loyd, Fort Worth, \$24,415.

Nueces—S.H. 286, C-326-1-3 & 3-8, asp. conc. pvt.; N. B. Hoffman, Fort Worth, \$34,127.

Liberty—FM 1141 & 1111, R-146-2-2 & R-1146-2-2 & R-1146-3-1, Brn. & Root, Inc., Houston, \$102,537.

Fort Bend—FM 1464, R-1415-2-1, grad. str., soil asp. base 7, one-course; J. F. Buckner & Sons, Cleburne, \$92,122.

Limestone—FM 1245 & 1246, R-1191-3-1 & R-808-2-1, grad. str., flex. base and one-course surf. treat.; Callan Construction Co., Waco, \$134,990.

Hopkins—FM 1537, R-1476-2-1, grad. str., flex. base and 2-course surf. treat.; Dew Construction Co., \$79,135.

Wood—FM 1483, RV-657-4-1, grad. str., flex. base prime and L-course surf. treat.; Howard Bros. & R. B. Butler, Madisonville & Bryan, \$166,269.

Parker—Cont. No. RV-1467-1-2, Hwy. FM 1342, 2.796 mi. John F. Buckner & Sons, Cleburne, Tex. \$86,840; for grad. str., base stab and 1-course surf. treat. from S.H. 199 northerly to Renop.

Bexar—Fed. Proj. No. U-1083(11), Cont. No. 17-10-3, Hwy. U.S. 81, 0.475 mi.; Austin Bridge Co., Dallas, Tex., \$1,134; for grad.

strs. and pavt. from San Pedro Creek to Postell St. in San Antonio, J. L. Dickson, San Antonio, Tex.

Bell—U.S. 81, FI-644(5), Nolan, Leon & Peppers Creek Bridge; Ernest Loyd, Fort Worth, \$37,812.

Red River—U.S. 271, C-221-3-18, Irnt Lake Bridge and Approaches; John T. Leslie, Waxahatchie, \$77,461.

Nueces—FM 666, R-1052-2-1, Nueces River Bridge and Approaches; Austin Bridge Co., Dallas, \$66,107.

Navarro—FM 637, R-995-1-3, grad. str., soil asp. Ps. and 1-course surf. treat.; E. W. Hable & Sons, \$48,564.

Lampasas—FM 582, R-1032-1-3, grad. str., foun. course and 1-course surf. treat.; Holland Page, \$46,089.

Delta—FM 128 & 895, V-763-2-1 & V-1174-1-2, grad. str.; Ernest Loyd, Fort Worth, \$83,902.

Sabine—R-1510-1-1, FM 1592, grad. str., flex. base and 1-course surf. treat.; Foley & Williams, Tyler, \$71,666.

Hale—RM 1314, R-1126-1-2 & 2-61, grad. str., foun. course and 2-course surf. treat.; J. C. Buckner & Sons, Cleburne, \$66,668.

Angelina—FM 843, R-1164-1-1, grad. str., foun. course and 1-course surf. treat.; John F. Buckner & Sons, Cleburne, \$80,649.

Johnson—RM 1192, R-1513-2-1, grad. str., roadbed treat. and 1-course surf. treat.; John F. Buckner & Sons, Cleburne, \$80,649.

Denton—S.H. 121 & Loop 187, F-1085(8), grad. str., flex. base, conc. pvt., asp. stab. and 2-course surf. treat.; Austin Road Co., \$23,100.

Jefferson—S.H. 326 & U.S. 90, S-1513(1) & F-312(4), grad. str., flex. base, and 1-course surf. treat.; Wendel Construction Co., El Campo, \$179,687.

Guadalupe—FM 1334, R-1434-1-1, grad. str., flex. base and 1-course surf. treat.; Killian-House Co., San Antonio, \$41,609.

Hunt—FM 1564 & 35, V-1496-1-1 & V-641-1-5, grad. str., foun. course and 2-course surf. treat.; R. W. McKinney, Nacogdoches, \$164,434.

Frio—FM 1463, R-748-4-2 & RV-743, grad. str., flex. base and 2-course surf. treat.; Sch. Bros. & Sons, San Antonio, \$129,457.

Collin—S.H. 78, C-281-1-62 & 8412, grad. str., asp. surf. treat. and Price Creek Bridge; H. L. Butler & Son, Dallas, \$70,214.

Robinson—FM 1391 & 1392, R-1396-1-1 & R-1016, grad. str., soil asp. base and 1-course surf. treat.; R. N. Adams, Kaufman, \$98,184.

Brasoria—S.H. 36 & 288, C-188-6-14 & C-111-8-2, grad. str., base, asp. surf. and str.; Harrison Engr. & Construction Co., Kansas City, Mo., \$32,944.

C-136—U.S. 82, 271 & S.H. 24, C-45-9-20, C-221-1-17, asp. conc. pvt., C-136-6-18 & C-136-7-17; Uvalde Construction Co., Tyler, \$77,621.

Dimmit—FM 1558 & 1557, V-37-13-1 & V-1484-1-1, grad. str., flex. base and 1-course surf. treat.; Schwope Brothers, San Antonio, \$38,435.

Bosque—FM 56, R-398-1-6, grad. str., foun. course and 1-course surf. treat.; Callan Construction Co., \$129,457.

Parker—FM 1512, RV-1467-1-2, grad. str., base stab and 1-course surf. treat.; John F. Buckner & Sons, Cleburne, \$36,840.

CONROE—FM 163, R-952-1-2, grad. str., flex. base and 1-course surf. treat.; Holbrook & Graves, Dayton, \$36,135.

Correll & McKenna—FM 185, R-567-2-1 & R-567-3-1, grad. str., flex. base and 1-course surf. treat.; Thomas & Ratliff, Rogers, \$82,544.

Lamar—FM 821, V-1154-2-1, grad. str., flex. base and 2-course surf. treat.; Ernest Loyd, Fort Worth, \$191,055.

BONHAM—Bonham Housing Authority plans 64-housing unit, \$611,000.

BROWNSVILLE—Brownsville Housing Authority plans 122-housing units, \$1,233,000.

CLEVELAND—Cleveland Independent School District plans school buildings, \$750,000.

CONROE—Conroe Independent School District plans school improvements, \$1,500,000.

CORPUS CHRISTI—City plans improvements to sewage collection plant, \$700,000.

CORPUS CHRISTI—City will soon call for bids for auditorium, \$1,400,000.

CORPUS CHRISTI—Memorial Hospital let contract to Lawless & Afford, \$778,778, for addition to out-patient building.

DALLAS—Dallas County will let contracts some time in November on \$22,500,000 road bond program.

DALLAS—Dallas Independent School District let contract to J. E. Morgan & Sons, \$282,781, for Thomas J. Rusk Junior High School.

DALLAS—Leo F. Corrigan plans 17-story \$5,000,000 Corrigan Tower office building.

DALLAS—City Council let contract to Cole Williams, Inc., \$2,137,245, for 10-mile-long water line.

DALLAS—State Hospital Board, Austin, plans \$2,000,000 hospital for the mentally ill in Dallas Medical Center.

DALLAS—Methodist Hospital of Dallas plans new hospital, \$1,000,000.

DALLAS—City received low bid from Austin Building Co., \$579,000, for Cadiz Pump Station.

DENTON—North Texas State College received low bid from Nathan Wohlfeil, Dallas, combination bid of \$1,771,989 for two dormitories and cafeteria and stadium.

EL PASO—El Paso Natural Gas Co., Houston, plans 15-story office building, \$2,500,000.

FORT WORTH—Texas Christian University let contract to McCann Construction Co., \$729,893, for science building.

FORT WORTH—City plans additions to Greater International Airport, \$2,530,000; includes expansions of water plant and water distribution systems; sewer treatment plant and collection systems; access roads and runway; taxiway lighting and traffic control; fence and landscaping; relocation of power line; installation of street lighting and high intensity light; incidental construction for building and landing systems; sidewalks, and park areas, etc.

FORT WORTH—City plans Almon G. Carter Terminal Building addition, \$650,000.

HOUSTON—Harris County let contract to Manhattan Construction Co., Houston, \$2,927,219, on Contr 1 for Harris County Courthouse and Jail Building, and \$1,041,187 on Contr 2 for remodeling old building.

HOUSTON—Hugh Wilkin plans \$4,000,000 subdivision.

HOUSTON—State Hospital Board, Austin, plans a \$2,000,000 hospital for the mentally ill in Medical Center.

HOUSTON—University of Texas received low bid from Farnsworth & Chambers Co., El Paso, \$555,185, for Anderson Cancer Research, Texas Medical Center, University of Texas.

HOUSTON—W. S. Bellows Construction Co. let contract for \$6,000,000, 18-story Prudential Insurance Co. of America.

HOUSTON—Howard Johnson plans expenditure of \$3,000,000 within the next two years on opening of 10 restaurants in Houston, Dallas, Fort Worth, Galveston, Beaumont, Austin and San Antonio; now building a \$1,000,000 ice cream factory.

HOUSTON—Southwestern Bell Telephone Co. let contract to Telepen Construction Co. for 21-story Melrose Exchange Building for Natkin & Co., \$4,000,000.

HOUSTON—Memorial Hospital let contract to Chad Denton Construction Co. for addition, \$2,000,000.

LUBBOCK—City approved \$1,504,000 bond issue for sanitary sewer improvements.

LUBBOCK—City approved \$625,000 bond issue for parks and recreation; \$433,000 for fire station; \$188,000 for street lighting; \$111,000 for service buildings and warehouses.

LUBBOCK—City approved \$2,696,000 bond issue for water improvements.

LUBBOCK—City approved \$500,000 bond issue for storm sewers.

MALLEN—MalLEN Housing Authority plans 150 housing units, \$1,425,000.

MALLEN—City plans expansion of Municipal Hospital, \$1,000,000.

MISSION—Mission Housing Authority plans 80 housing units, \$780,000.

NACOGDOCHES—City plans \$975,000 water and sewer system improvements.

ORANGE—Orange Independent School District plans school improvement program, \$750,000.

PHARR—City plans \$750,000 water and sewer improvements.

SAN ANTONIO—Chamber of Commerce Highway Committee announced allocation of \$4,273,000 in state and federal funds for development of urban expressway.

SAN ANTONIO—City Public Service Board plans Power Unit No. 3 at Leon Creek Power Station on Quintana Road, \$7,400,000.

SAN BENITO—City plans water system improvements, \$780,000.

SAN MARCOS—City plans \$550,000 water and sewer improvements.

SWENKEY—Sweeney Independent School District plans school improvements, \$675,000.

TEXAS CITY—City plans sewage disposal plant, interceptor lines and extensions, \$861,000.

TEXAS CITY—Monsanto Chemical Co. announced plans for an immediate \$15,000,000 expansion program; a \$30,000,000 expansion program over a period of two or three years had been previously announced.

TYLER—City sold \$500,000 bond issue to Underwood Neuhaus for waterworks improvements.

TYLER—City sold \$500,000 bond issue to Underwood Neuhaus for sewer improvements.

VIRGINIA

VIRGINIA—Chesapeake and Potomac Telephone Co. of Virginia plans expenditures of \$3,600,000 during the next 3 months on improving and expanding its facilities, including:

(Continued on page 36)

Southern Construction Projects

VIRGINIA

(Continued from page 35)

ing installation of new \$463,000 exchange to house central office equipment in Berkeley and South Norfolk sections, scheduled for conversion to dial systems next spring; \$144,000 will be spent for improvements on Virginia's Eastern Shore and some \$135,000 for additional central office equipment in Roanoke and more than \$2,400,000 will be spent for extension of service in rural areas.

ACCOMAC COUNTY—National Advisory Committee on Aeronautics received low bid from Doyle & Russell, Norfolk, \$235,000, for instrumentation center No. 2 and solid propellant shop, Wallops Island.

ARLINGTON—Arlington County Board plans to enlarge sewage plant, \$2,617,000.

ARLINGTON—Arlington County plans \$7,450,000 school program at Arlington.

ARLINGTON FARMS—Public Buildings Service, Washington, D. C., let contract to Edward B. Friel, Washington, D. C., \$217,527, for main hall, remodeling into 65 apartments.

CHARLOTTESVILLE—University of Virginia let contract to Doyle and Russell, Richmond, \$187,000, for power plant building; Beaumont-Hughes Co., Arlington, for coal and ash handling equipment, \$53,542, and Consolidated Chimney Co., Richmond, for radial brick chimney, \$14,670.

CHESTERFIELD COUNTY—Board of Education let contract to C. E. Nuckols, Richmond, for Jahneh Road School, \$229,304.

CHESTERFIELD COUNTY—Board of Education let contract to C. E. Nuckols, Richmond, for additions and alterations to Middleton School, \$203,535.

DANVILLE—Dan River Mills, Inc., let contract to United Engineers and Constructors, Inc., Philadelphia, Pa., for new \$3,500,000 plant expansion program at Schofield.

DUBLIN—Board of Education received low bid from Trinkle and Dobyns, \$892,470, for Dublin High School.

FAIRFAX—Fairfax County plans \$1,100,000 sewage disposal plant.

FAIRFAX—Fairfax County School Board plans \$12,000,000 school construction program.

HAFTON—Board of Education received low bid from Virginia Engineering Co., Newport News, \$328,000, for alterations and additions to Willie-Syms Eaton Elementary School.

LANGLEY FIELD—National Advisory Committee on Aeronautics let contract to Arthur E. Mather Co., New York City, N. Y., \$550,281, for auxiliary equipment and controls for 8-foot transonic wind tunnel.

LOUISA—Louis County Memorial Hospital received low bid from Construction Co., Charlottesville, \$229,450, for Louis County Memorial Medical Service Center.

LYNCHBURG—Board of Education let contract to C. L. Lewis, \$646,692, for school building and auditorium.

LYNCHBURG—City let contracts for waterworks improvements as follows: General, F. L. Showalter, Inc., Lynchburg, \$143,756, and tank, Pittsburgh-based Moines Steel Co., Pittsburgh, Pa., \$161,000.

MANASSAS—Prince William County Commissioners plan \$2,400,000 school construction.

NORFOLK—State Highway Commission let contracts for projects in following counties: Cumberland—U. S. 60, 2.92 miles of leveling and widening; Wiley N. Jackson Co., Roanoke, \$197,719.

Mecklenburg—U. S. 1, 8.88 miles of concrete widening and asphalt surf.; T. E. Brown, Charlotte, N. C., \$183,131.

Russell—Routes 19 and 71, 0.6 mile sidewalk at Lebanon and street work; A. B. Lynch, Lebanon, \$23,231.

Caroline—Route 67, 1.56 miles of six-inch stabilized surf.; P. C. Goodloe and Sons, \$43,270.

Mecklenburg—Route 735, 1.66 miles hard surf.; A. W. Talbott, Buffalo Springs, \$37,687.

Nelson—Route 626, 7.97 miles hard surf., and a bridge; Adams and Tate Construction Co., Roanoke, \$122,795.

Patrick—Route 675, 4.92 miles hard surf.; Wiley N. Jackson Co., Roanoke, \$84,732.

Smyth—Routes 679 and 615, 1.35 miles reconstruction; H. R. Nuckols, Hollins, \$18,961.

Washington—Routes 689, 6.71 miles grad. and surf.; Adams and Tate Construction Co., Roanoke, \$72,950.

Rockingham—Route 259, 192-foot bridge and approaches at Linville Creek; Echols Bros., Staunton, \$83,885.

Wise—Routes 78 and U. S. 23, four bridges on Route 78, also street widening, sidewalk and curb and gutter on Route 23 in Appalachia; Robertson-Henry Co., Huntington, W. Va., \$255,083.

NORFOLK—City Council plans improvement and expansion program of Norfolk

water system, \$6,500,000.

NORFOLK—State Highway Commission, Richmond, let contract to Ames and Webb, \$435,962, for 1.61 miles of six-lane highway on Hampton Boulevard.

PETERSBURG—State Hospital Board, Richmond, let contract to Harry B. Graham Co., Charlottesville, \$567,257, for female attendants' dormitory, Central State Hospital.

PULASKI COUNTY—Board of Education let contract to Laburnum Construction Co., Richmond, \$407,964, for academic school, gymnasium and auditorium at Beaumont Industrial School.

PRINCE GEORGES—Prince Georges County Commissioners approved \$500,000 bond issue for completion of 8 county schools and purchase of sites for seven schools.

PULASKI COUNTY—Board of Education received low bid from Trinkle and Dobyns, Dublin, \$384,500, for Glaremont Elementary School.

QUANTICO—Corps of Engineers, Norfolk, let contract to Blake Construction Co., Washington, D. C., \$714,248, for building and facilities.

RICHLAND—State Highway Department received low bids for projects in following counties:

Fluvanna—See Route 637, 172-foot bridge over Hardware River at the end of the hard surf. north of Scottsville; Moore Brothers, Staunton, \$37,570.

Henrico and Charles—Route 5, 4.75 miles of straightening and widening, and two bridges between Richmond and Charles City; C. H. T. F. Franklin, Salem, \$144,261.

Chesterfield—U. S. 1, 0.83 mile of widening, super-elevating and dividing the approaches to A. C. Railroad underpass between Richmond and Petersburg; T. E. Brown, Charlotte, N. C., \$102,680.

Montgomery—U. S. 1, 0.93 mile of street construction in the City of Radford; McDowell & Wood, Salem, \$75,832.

Lancaster—See Route 635, 0.39 mile of widening, with curb, gutter and sidewalk, at Irvington; E. W. Muller, Newport News, \$23,873.

Scott—See Route 613, 0.59 ml. grad. and hard surf. near Snowflake; Alley Construction Co., Bristol, \$27,286.

RICHLAND—State Highway Department received low bids for projects in following counties:

Clarke and Warren—See Route 624, 6.90 miles of hard surf. and bridge over Long Branch south of Millwood; Moore Bros., Staunton, \$125,698.

Grayson—See Route 622, 4.9 miles of hard surf. near Delhart; Adams & Tate Construction Co., Roanoke, \$63,902.

Mecklenburg—See Route 698, 3.16 miles of hard surf. from Young's Store to Skipwith; Turk & Mainland, Inc., Norfolk, \$47,087.

RICHLAND—State Highway Commission let contract for projects in following counties:

Henry—Route 57, 272-foot bridge over Smith River and 0.9 mile of approach road at Bassett; Harvey H. Stewart, Charlotte, N. C., \$162,163.

Frederick, Warren and Shenandoah—U. S. 11, div. four-lane bridge and 0.72 mile of approach road at Cedar Creek north of Woodstock; Moore Brothers, Staunton, \$219,123.

Powhatan and Amelia—See Route 609, a 339-foot bridge over Appamattox River between Amelia and Powhatan Courthouse; Norfolk Contracting Co., Norfolk, \$109,086.

Nottingham—See Route 1123, elimination of narrow steel truss bridge at Mallory Creek south of Burkeville by relocation and a double eight-foot culvert; Norfolk Contracting Co., Norfolk, \$17,502.

City of Richmond—U. S. 1, 0.34 mile of widening of southbound lane of Petersburg pike from Hull to Maury Streets; Atlantic Bitulithic Co., Richmond, \$53,591.

Montgomery—U. S. 1, 0.93 ml. of street construction in City of Radford; McDowell & Wood, Salem, \$75,833.

Lancaster—See Route 635, 0.39 mile of widening, with curb, gutter, and sidewalk, at Irvington; E. W. Muller, Newport News, \$23,873.

Montgomery—See Route 637, 4.96 miles of hard surf. south of Shavsville; H. R. Nuckols, Hollins, \$97,088.

Highland—See Route 640, 2.20 miles surf. between Blue Grass and W. Virginia line; Yount & Co., Staunton, \$26,939.

Montgomery—U. S. 11, 4.43 miles of divided highway and two bridges between Elliston and Christiansburg; Albert Bros., Con., Inc., Salem, \$777,819.

Hanover—Route 54, 0.52 mile of widening and resurf. on England St. from U. S. Route 1 to Railroad Avenue; H. F. Taylor Contracting Co., Richmond, \$73,964.

Carroll and Wythe—Route 94, 3.37 miles of reconstruct. and macadam surf. near Ivanhoe;

Pendleton Construction Corp., Wytheville, \$198,754.

Campbell—U. S. 460, 2.24 miles 24-foot macadam from Concord toward Lynchburg; Robertson-Henry Co., Inc., Huntington, W. Va., \$154,863.

Fauquier—See Route 713, 3.05 miles of hard surf. from Rectortown to Tavern; Walter N. Webber, Lynchburg, \$61,947.

Northumberland—See Route 605, 6.19 miles of surf. from Route 200 to near Hughlett Point; Northerneck Construction Co., Callao, \$31,290.

Prince Edward—See Routes 636 and 612, 6.72 miles hard surf. north of Prince Edward State Forest and west of Burks Tavern; Walter N. Webber, Lynchburg, \$61,947.

Prince George—See Route 629, 2.82 miles of hard surf. from New Bohemia N.E. to Route 154; Short & Thompson, Inc., Hopewell, \$15,835.

RICHLAND—State Board of Education approved \$1,061,840 for construction of 21 school buildings in 10 Virginia counties and one city.

RICHLAND—Board of Education let contract to Virginia Engineering Co., Newport News, \$1,921,000, for Armstrong High School.

RICHLAND—Board of Education let contract to Thorington Construction Co. for additions and alterations to Summer Hill School; \$282,898.

RICHLAND—Southern Biscuit Co., Inc., plans \$369,000 addition to cracker and cookie plant.

RICHLAND—Board of Education let contract to Thorington Construction Co. for Mary B. Munford School; \$280,163.

RICHLAND—Board of Education let contract to C. E. Nuckols, \$267,000, for addition and alterations to Franklin School.

ROANOKE—J. E. J. Pitzer, Washington, D. C., plans have contract \$396,443, for Roanoke Health Center.

ROANOKE—City received low bids from the following for sewer project: E. & J. Pitzer, Washington, D. C., sewer treatment plant, \$1,540,260; M. S. Hudgins, Joe Hudgins & Claude Page, Jr., tanker creek interceptor line, \$370,500; Central Construction Co., Louisville, Ky., \$958,750; Roanoke River interceptor line, Boyle Construction Co., Sumter, S. C., upper half of the river interceptor, \$1,131,000; lump sum submitted by Ralph E. B. B. Co., Salem, N. C., and Blythe Brothers, Charlotte, N. C., \$2,446,780, for interceptor lines.

ROANOKE—City let contract to B. F. Parrott, Roanoke, for administration building, Roanoke Municipal Airport, \$335,127; T. F. Franklin, Salem, for related work, \$37,695.

VIRGINIA BEACH—Cavalier Hotel plans 42-room addition, \$200,000.

WARD'S COUNTRY—Paul H. Rose Corp. plans three-story 5 and 10-cent store; \$1,000,000.

WHITE GATE—Trinkle & Dobyns, Dublin, have contract at \$298,900 for raising building and boiler plant, Blend Correctional Farm, Abbott & Ritchie, Richmond, \$219,110, for water supply-sewer lines.

WYTHE COUNTY—Board of Education received low bid from English Construction Co., Altavista, \$233,740, for Max Meadows Elementary School.

WEST VIRGINIA

WEST VIRGINIA—State sold \$6,000,000 bond issue to Lehman Brothers for road construction.

ALBRIGHT—Monongahela Power Co. and Potomac Light Power Co., subsidiaries of West Penn Electric System plan new 150,000 kilowatt electric generating station on the Cheat River in Preston County, \$20,000,000.

CHARLESTON—State Road Commission let contract for project in following county:

Ohio—Proj. 7784, Aetnaville Bridge No. 1638, floor constr. and gen. repairs; Conn. Welding & Machine Co., New Castle, Pa., \$187,449.

CHARLESTON—State Road Commission received low bids for projects in following counties:

Pocahontas—Proj. FH-43-C, Douthat Bridge No. 1754; Monty Brothers, St. Albans, \$49,769.

Preston—Proj. S-523(2), L. Sandy Bridge, No. 1338; J. M. Frances & Co., Fayetteville, \$46,617.

Pocahontas—Proj. FH-43-A, grad. and drain; Atlas Engineering & Sam Polino, Elkton, \$193,615.

Grant and Mineral—Proj. S-512 (2), grading, Stickley Bros., Inc., Keyser, W. Va., \$268,470.

Hardy—Proj. S-502 (3), grading, Stickley Bros., Inc., Keyser, W. Va., \$277,536.

Preston—Proj. 5229, grading, J. F. Allen

(Continued on page 52)

Equipment and Material Makers' News

Detroit Engine Division Wins Packaging Prizes



Above—Packaging for which Detroit Diesel Engine division took first prize.

At the Fourth Annual Protective Packaging and Materials Handling Competition conducted by the Society of Industrial Packaging and Materials Handling Engineers at Philadelphia last month, Detroit Diesel Engine Division of General Motors took two first prizes in the six packaging classifications and "honorable mention" for the second best inner pack in the show. This is believed to be the first time any concern has won two first prizes in this competition.

C. L. Eoy, in charge of package design at Detroit Diesel, submitted three entries in the competition. The two winning entries were a fuel injector package and cylinder kit package, scientifically tested cartons for precision-built, carefully finished vital engine parts. Developed by years of successive improvements, ingenious arrangement of corrugated fibroboard inserts and padding and oil proof paper resulted in packages that are smaller in size, lighter in weight, less expensive and have virtually eliminated shipping damage.

Features of the fuel injector package include re-usability, yet a string-breakable tape seal is immediate evidence as to whether the package contains a new part from the factory or a used or rebuilt part. On this package an attractive full scale photographic reproduction of the injector identifies the contents. The cylinder kit package offers a heretofore unattained measure of protection for piston rings which are exceedingly vulnerable to breakage through distortion if not carefully handled.

Head of the Parts Department at Detroit Diesel is J. Ball; the parts merchandising manager is R. K. Collick and the Parts Warehousing Activity, where the actual parts packaging is done, is superintended by F. J. Will.

Motor Starters Bulletin

Allis-Chalmers motor starters—Type H—for 2300 to 5000-volt squirrel cage, wound rotor, synchronous and multi-speed motors are described in a new 12-page bulletin released by the company.

The starters are built for full voltage or reduced voltage, reversing or non-reversing, with plugging, dynamic braking and multi-speed features. Ratings are up to 2500 horsepower at 5000 volts. The contactors (air break or oil immersed), protective devices, meters, and relays are engineered and assembled in an easy to install steel cabinet.

The air break contactor—Type 256—particularly adaptable for applications requiring frequent starting, inching, reversing, plugging or dynamic braking are described in detail in another late bulletin.

The oil immersed contactor—Type MO—is designed to withstand stresses of frequent starting and stopping service and can be used in dust-laden atmospheres and in other locations where atmospheric contamination would interfere with the proper operation of air contactors.

Marion Issues Bulletin on Type 93-M Electric Unit

Marion Power Shovel Co., of Marion, Ohio, is announcing the publication of Bulletin No. 401 which outlines the design and operating features of the Marion Type 93-M Ward-Leonard electric machine.

Built for heavy-duty service on long-term jobs in quarrying, metal mining, coal and construction, this machine incorporates Marion Ward-Leonard electric controls for all major operating motions, including hoisting, swinging, propelling and crowding.

Economical operation and high operating speed result from the use of new and compact 690 line motors on the Marion 93-M Ward-Leonard. The smaller size of these motors gives them low armature inertia, permitting faster starting, stopping and reversing and requiring less power.

The Marion 93-M Ward-Leonard machine is presented as a companion unit to the Marion Type 93-M Diesel machine.

Caterpillar President Honored

Thirty-five years of service with a company is a long time—but the pin that C. L. Best, chairman of the board of Caterpillar Tractor Co., Peoria, Ill., awarded recently to President Louis B. Neumiller is recognition of the latter's work with the company since 1915. Brief ceremony took place recently in San Leandro, Calif. A native Peorian, Mr. Neumiller started work for Caterpillar as a clerk in the engineering office. He has been president since September, 1941.

Thor Electric Tools at Automotive Show

A complete new line of Thor Silver Line portable electric tools, supplemented by valve shops, body and fender hammer tools, pneumatic impact wrenches, multi-matic air tool kits, valve seat grinders and an array of automotive tool accessories will be featured in Independent Pneumatic Tool Company's 100-foot booth at the Automotive Service Industries Show to be held December 4-8 at Navy Pier, Chicago, Ill.

The Silver Line portable electric tools will include 1/4-inch standard and heavy-duty drills; 5/16-inch and 3/8-inch standard and heavy-duty drills; 4, 5 and 6-inch grinders, and 8-inch heavy-duty sanders, standard and heavy-duty polishers, and 3/4-inch electric impact wrench.

Thor No. 99 and 100 valve seat refacers and heavy and extra heavy duty valve seat grinders will hold the spotlight in the valve shop section which will also feature a complete line of valve shop accessories.

Thor service engineers and managers from branches throughout the country will be in the booth to give continual demonstrations throughout the show.

Littleford Equipment Catalog

Black top, road maintenance and construction equipment listed in Catalog—A-A, issued by Littleford Brothers Inc. (Cincinnati, Ohio). The 32-page booklet describes and pictures asphalt and tar kettles, concrete heaters, pressure distributors, paving tools and other equipment used in highway, road and airport construction and maintenance.

The company has been manufacturing bituminous handling equipment for fifty years and is a leader in the field in producing the modern units for current highway, road and airport construction and maintenance.

Littleford has engineered and designed units which have simplified the heating and application of asphalt, tar, emulsion, cut-back and road oils. Through engineering research, Littleford was able to bring to the black-top industry machinery for doing the job quickly, efficiently, and profitably.

New Cantilever Boom

Safety features are strongly emphasized in a new bulletin on the Jones KI-22, a 25-ton wagon crane which has a cantilever boom eliminating boom hoist cables. The booklet, put out by the Tractor and Equipment Co., Oak Lawn, Ill., describes, illustrates and gives specifications for the self-propelled lifting crane which, according to the manufacturer, can be used for material handling in factories and warehouses, for erecting light steel and timbers and for setting forms.

Caterpillar Service Information

"Service Reporter" is an informally written publication released by Caterpillar Tractor Co., Peoria, Ill., containing helpful hints and basic information on how to keep "Caterpillar" equipment in good working condition.

According to M. A. Clements, general service manager, "Service Reporter" is compiled and edited by Vic Woodling, supervisor of dealer service publications and the "Caterpillar" service staff. For the present it will be issued four times a year—October, January, April, and July. Each issue will contain subjects applicable to every owner—fleet or individual—and will not be confined to one class of equipment.

Circulation of "Service Reporter" is through "Caterpillar" dealers and will be about 200,000 copies.

White Publishes Catalog

A new catalog, No. 32-D, listing standard products as well as new items for the construction and maintenance of roads and streets has been announced by White Manufacturing Co., Elkhart, Ind. The 20-page booklet describes and illustrates portable and stationary asphalt plants, concrete vibrators, asphalt and tar heating kettles, front end loaders for wheel type tractors, tool and surface heaters, and kerosene torches.

New Tilt Plaster-Mortar Mixer by Kwik-Mix

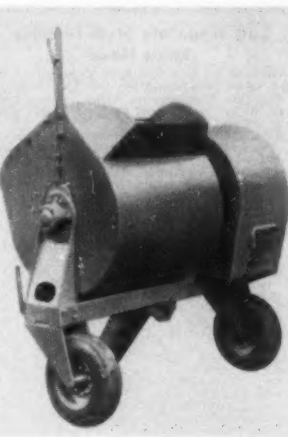
A tilting plaster-mortar mixer of 6 cubic foot capacity has been added to the complete line of concrete, bituminous and plaster-mortar mixers manufactured by the Kwik-Mix Co., Milwaukee, Wis. Located in Port Washington, Wis., Kwik-Mix is a subsidiary of the Koshing Co. of Milwaukee.

Featured on the new mixer unit is a semi-power tilt arrangement that practically nullifies any effort required to tilt the drum. Through the action produced by the paddle shaft drive, the loaded drum tends to tilt itself when released for discharge. The drum also tilts in the opposite direction for quick, easy cleaning.

Equipped with a single cylinder, air-cooled gasoline engine, power in the new mixer is transmitted by multiple "V" belt with enclosed reduction gears running in oil. Electric power is optional. Four non-clogging mixing blades, positioned at 90 degrees around shaft for uniform action, are slotted for radial and longitudinal adjustment. Blades swing the drum on each revolution for end-to-end mixing and rapid discharge.

A 60-inch wide wheel gauge permits fast towing and the handy 32-inch length allows this tilter to clear standard door openings. Tipping is prevented by the push-down tow pole arrangement.

Below—Six-cubic yard tilting plaster-mortar mixer added to Kwik-Mix line of bituminous and concrete units.



Equipment and Material Makers' News

Allis-Chalmers Division Buys Erie Iron Works

Allis-Chalmers Rumley Ltd., a Canadian subsidiary of Allis-Chalmers Manufacturing Co., Milwaukee, Wis., has announced the purchase of the Erie Iron Works at St. Thomas, Ontario, and also the purchase from the city of an additional seven acres of land.

According to W. C. Johnson, executive vice president in charge of the parent company's general machinery division, Allis-Chalmers took possession of the new site in October. By the first of the year, the company hopes to install machine tools for manufacturing operations. Until that time, however, assembly operations will be carried out. The plant was completed in 1948 and has 19,000 square feet of floor space.

Mr. Johnson said that besides the purchase of the plant and the adjoining seven acres, an option was taken by Allis-Chalmers on an additional 24 acres of land. The general machinery division for the present plans to manufacture and assemble products that will become component parts of finished equipment. Foremost among these will be controls for diesel locomotives manufactured by General Motors Diesel plant of London, Ontario.

Snow Loaders Listed

George Halse Manufacturing Co., Inc. New York City, division of Pettibone Mulliken Corp., has announced a 6-page booklet illustrating, describing and giving the specifications for three snow loaders, Models 300WS, 75WS, and 100WS. Mechanical benefits cited by the manufacturer are weight, digging power, wide clearance, completeness, extra traction, maneuverability, simplicity of operation, rugged construction, and uses for other purposes such as coal, stone, gravel and sand handling.

Buda Dyna-Swirl Diesels

The Buda Co., Harvey, Ill., has issued Bulletin 1506, a 16-page, two-color catalog describing the new Buda Dyna-Swirl Diesel engines especially designed for all types of heavy-duty trucks. Included are detailed specifications of the various features of the engines including a full explanation of the Dyna-Swirl combustion system which improves the operation of the engine by providing approximately 15 per cent more horsepower and 15 per cent higher usable torque. Four pictures are devoted to pictures and stories about installations of these engines in actual trucks.

"Oscar of Industry" Awarded

For the sixth consecutive year Marquette Cement Manufacturing Co., Chicago, Ill., has again won top honors for excellence in annual reporting. The independent board of judges in the Financial World Annual Report Survey this week announced its finding that the Marquette 1949 Annual Report is best in the cement industry. The bronze "Oscar of Industry" trophy is emblematic of the honor.

Lull Appoints Hoff District Sales Head

Kenneth K. Hoff has been appointed a district sales representative for Lull Manufacturing Co., Minneapolis, Minn., according to a recent announcement by L. H. Lull, president of the company.

Mr. Hoff will headquarter in Syracuse, N. Y., and will work with Lull distributors in New York, Pennsylvania, New Jersey, Massachusetts, Rhode Island, Connecticut, Maine, New Hampshire, Vermont, Maryland, Delaware, Province of Quebec, Province of Ontario and the Maritime Provinces of New Brunswick, Nova Scotia, and Prince Edward Island.

Prior to his coming with Lull Manufacturing Co., Mr. Hoff was associated with the Syracuse Supply Co. of Syracuse, N. Y., for 15 years as field representative. He had varied and varied experience in selling and servicing materials handling equipment and allied lines and will handle all Lull sales activities with their distributors in his territory.

Lull Manufacturing Co. is the designer and builder of a line of allied equipment for industrial wheel tractor units and several materials handling units. These products include Shovelloaders, Tilting-Tower Universal Loaders, Fluid-Driven Sweepers, Shoulder-Maintainers, Travelers and Fork-Lift Trucks.

New Post Filled

Oscar von Seeger, export representative, has been named to the new post of assistant divisional manager of the export sales department. It is announced by J. G. McDonald, export manager of Caterpillar Tractor Co., Peoria, Ill.

Mr. von Seeger, who returned to the United States in September after two years in the Scandinavian countries, Germany, and Iceland, joined Caterpillar in 1927 as a clerk in the master tool crib.

During World War II he supervised ground transportation equipment in Eritrea for Douglas Aircraft Corp. and served as a technical advisor and supervisor of spare parts for the U. S. Corps of Engineers at depots in Columbus, Ohio, and Oakland, Calif.

He was in the export department at Caterpillar from 1938 to 1941 and returned as an assistant in export training in September, 1945. He has been an export representative since July, 1946, living in Stockholm, Sweden.

Twindual Gravel King

A scalping screen which by-passes pit run material of finish size directly to a delivery conveyor is one of the features described in Bulletin L501 issued on the Twindual Gravel King manufactured by the Universal Engineering Corp., Cedar Rapids, Iowa, a division of Pettibone Mulliken Corp. of Chicago.

In addition to photographs and text, diagrams are used to illustrate the various product combinations in the Twindual Gravel King.

Portable Winch-Hoist

A new Lug-All 1½-ton alloy winch-hoist is announced by the Lug-All Co., Wynnewood, Pa. With a 30 to 1 power ratio and fully tested to a 100 per cent overload, weight of the hoist is held to only 8½ pounds by careful design. Standard features include top grade pre-formed flexible aircraft cable, stainless steel fittings and springs, plus oil-filled-for-life bearings.

The handle is reversible and acts as a "safety valve" to protect the user. If a riggering mistake be left overnight, the handle can be removed in 10 seconds, leaving the setup tamperproof. A unique combination of three swivel hooks and a built-in pulley block allows work to be done around corners, and as close as 10 inches at the 3-ton rating.

New Compaction Roller

A new flexible compaction roller is announced by Southwest Welding and Manufacturing Co., Alhambra, Calif. It consists of a series of weight-box units, each equipped with a wheel and tire. These units are filled with wet or dry sand, earth, steel scrap or other materials. As the compaction roller is towed over the variable surface of the earth fills the units oscillate up and down and provide a constant and unchanging compaction on each tire.

Thus there is no bridging nor sudden shifting of combined weight on any one or two wheels. A sectionalized tubular yoke permits the use of any number from three to six of the weight-box units. By the same means the unit can be dismantled for easy shipment. Compaction loads range up to 15 tons per tire. The heavy, welded, box-type goose-neck permits short turning in confined areas.

Vibratory Soil Compactor

A 16-page bulletin, COMP-3, on the Cederapids Vibratory Soil Compactor, issued by Iowa Manufacturing Co., Cedar Rapids, Iowa, describes the compaction of soil by vibratory pneumatic-tired rollers as one of the newest and most successful methods developed in recent years.

The Cederapids Compactor operates on a principle which develops a powerful compacting action through its pneumatic tires by means of a vibrator unit mounted on the axle. The soil is pushed straight down with a minimum of lateral displacement, resulting in higher densities with fewer passes, according to the manufacturer.

In addition to a complete description of construction details of both Model "60" and Model "25," the bulletin contains a number of actual job test reports made on various types of soil throughout the country on airport projects, highway subgrades, dams and other earth fill projects.

"Lodover" Described for Harvester Tractors

The Lodover, a new 1-yard combination overhead and front-end shovel for International Harvester tractors, is fully described in a new 8-page illustrated catalog just published by Service Supply Corp., Philadelphia, manufacturers of the Lodover.

According to the catalog, the Lodover substantially increases loading production, because turns are eliminated. On many jobs, Lodover overhead loading steps up output as much as 50 per cent. Elimination of turns, as many as 1800 per 8-hour shift, also substantially lengthens tractor life.

The Lodover is approved for International Harvester tractors and is sold through International Harvester Industrial Power dealers.

Copies of the new Lodover catalog may be obtained from International Harvester Industrial Power dealers, or manufacturing division, Service Supply Corp., Philadelphia 32, Pa.

Two Euclid Promotions

John E. Ehler, formerly in the sales department of Euclid Road Machinery Co., Cleveland, Ohio, has been appointed manager of service and parts. In his new position Mr. Ehler succeeds J. M. Fairbanks, who has been promoted to the post of assistant factory manager.

Worthington Names Chief Engineer

Louis G. Hilkemeler has been appointed chief engineer of the Construction Equipment Division at Dunellen, according to an announcement by E. W. Horton, Dunellen works manager, Worthington Pump and Machinery Corp., Harrison, N. J.

Formerly a construction machinery engineer with the Chain Belt Co. of Milwaukee, Wis., Mr. Hilkemeler has served as chairman of the Technical Committee of the Truck Mixer Manufacturers' Bureau. He will make his home in Plainfield, N. J.

Galvin Appointed Merchandise Manager by Buda

The Buda Co. of Harvey, Ill., manufacturers of Buda Diesel and gasoline engines and other products which are widely used in the construction industry, announce the appointment of E. R. (Ed) Galvin as merchandise manager.

Mr. Galvin has long been a prominent figure in construction circles, having served successively as general sales manager of the Caterpillar Tractor Co., R. G. LeTourneau, Inc., and LaPlant-Chote Manufacturing Co., in which positions he gained a wide knowledge of construction practices with both track type and rubber-tired equipment.

As merchandise manager of the Buda Co., Mr. Galvin will supervise retail sales through the Buda distributing organization. His headquarters will be in Harvey, Ill.

Rotary Batch Mixer by Worthington Machinery

Worthington Pump and Machinery Corp., Dunellen, N. J., recently announced Bulletin No. R-504 on the new batch mixer which offers maximum protection from dust hazards. To eliminate dust during discharge of batch, a dustproof housing enclosing the discharge chute is furnished.

The sealing joint packing on discharge side of drum revolves with the drum. The discharge housing portion of the seal remains stationary.

To eliminate dust during mixing period a sealing disc is furnished attached to inner side of discharge chute, completely closing discharge opening while mixing.

Spring and bearing on outside of sealing disc keep disc centered on the drum. A simple adjustment furnished allowing "take-up" to provide for wear.

Sealing joint packing revolves with the drum on the charging side. Packing is kept in place by a retaining ring accurately bolted to true center of drum with adjustment provision for keeping packing tight.

The units embody the well-known Ransome mixing action where the mixture goes up both sides, falls in two fanlike formations to bottom, is swished from side to side, carried up again and operation repeated.

Pump Catalog Published

Pump Catalog Number P-10, published by the Jaeger Machine Co., Columbus, Ohio, pictures and describes in detail dewatering, pressure, electric, and well point pumps. The 8-page booklet has a special section devoted to useful data related to selecting centrifugal pumps, finding horsepower required for pumping water, the effect of altitude on pumps, and various tables and rules.

Every Jaeger centrifugal is basically designed to pump air in large volume as well as water, making it inherently self-priming. According to the manufacturer who points out that the pump is designed to forcibly feed air from suction line to impeller by entraining this air in a high velocity jet of water. The two priming actions are independent but simultaneous. Either, alone, will prime the pump; together they make priming far faster than single action pumps—and doubly sure, even at extremely high lifts.

Rail Clamps Made for Ore Bridges

Ore bridges and similar material handling equipment traveling on rails sometimes get free rides from the rails. To eliminate such a hazard, Crucible Steel Company of America recently had Dravo Corp., Pittsburgh, design and install powerful rail clamps on the bridges. The big ore bridges operating along an 1800-foot runway at its Midland, Pa., mill. The clamps were installed while Dravo's crane and bridge department overhauled the two structures.

With tremendous pressure supplied by powerful helical springs pushing a toggle system and lever arms, the clamps grip each side of the rail in a pincer action by toothed, hardened steel contact blocks having a high friction factor. The "squeeze" on each rail is more than 192 tons, giving the bridge a total gripping force of 768 tons. The springs that hold the clamps against the rails are coiled of 1½-inch steel wire.

Road Publications Listed

A folder listing the publications available from the Highway Research Board, Washington, D. C., is now available. Articles included include reprints, highway research abstracts, industry bulletins, research reports, highway research reviews, proceedings, bibliographies, and current road problems.

Export Units Formed for Thor Power Tools

Organization of two export corporations to operate as Thor sales and service branches in western Europe and South America is announced by Neil C. Turner, Jr., president. Independent "Pneumatic Tool" manufacturers of Thor portable power tools.

In western Europe, the new corporation—Thor Tool Continental, Inc.—is located in Antwerp, Belgium, and operating under the direction of Vance G. Turner. Mr. Turner for the past three years has been Thor western Europe export representative with headquarters in Brussels.

Thor Tool Hemisphere, Inc., is the new South American corporation located in Sao Paulo, Brazil. Donald E. Randall, newly appointed manager, will supervise Thor sales and service throughout South America from the new headquarters.

Allis-Chalmers Releases New Substation Bulletin

A single circuit unit substation, arranged for maximum accessibility and easy maintenance, is described in 11B7457, a new eight-page bulletin released by Allis-Chalmers, Milwaukee, Wis.

The entire substation, including transformer, regulator and switchgear, is contained in a single weatherproof enclosure and mounted on a single steel base. Meters, recording instruments and control panels are located in a safe, dead-front compartment accessible behind the unit's front weatherproof hinged door. Current transformers, transformer secondary connections, bus work and internal terminations are located behind the hinged rear door. The switchgear has draw-out mounted auxiliary transformers.

To further simplify installation of the substation, all internal connections between transformer and switchgear are made at the factory.

Where extra feeders are unexpectedly needed, the single circuit unit substation can be easily and inexpensively modified in the field to meet requirements.

Link-Belt Manager Dies

Julius S. Holl, advertising manager of Link-Belt Co., Chicago, Ill., for almost 40 years, died last month after a prolonged illness. Mr. Holl was born in Philadelphia in 1886 and entered the employ of Link-Belt Co. at a subsidiary company, the J. M. Dodge Co., Philadelphia, in 1910, as stenographer and clerk. He was subsequently transferred to the parent company's Philadelphia plant stenographic department and soon became drafting room clerk.

He later joined the Link-Belt advertising department and on March 1, 1911, was made advertising manager at Philadelphia, with instructions to "move our small advertising department to Chicago headquarters, where he (President Charles Piez) could personally supervise it."

The Link-Belt advertising department of today consists of about 40 people and uses 20 business and industrial publications to reach the trade. Mr. Holl has done much through the years to popularize Link-Belt Co. and its products, and is well known throughout the advertising profession.

He had a very active hand in the development of the Engineering Advertisers Association of Chicago (now CIAA), founded in 1919, and was elected president in 1920. He helped also in the organization of the National Industrial Advertisers Association and, as vice president of this national group, he conducted a three-day industrial advertising session and exhibit that NIAA held in London, England, in 1924. He was elected president at this meeting.

Just prior to entering the hospital this year, Mr. Holl attended the annual meeting of the NIAA in Los Angeles as one of its honored guests. He was also a member of the Association of National Advertisers (ANA).

Caterpillar Tractor Expands Executive Structure

Broadening of the executive structure of Caterpillar Tractor Co., Peoria, Ill., is announced by President Louis B. Neumiller. The change includes creation of an additional executive vice presidency together with promotion of four administrative and departmental heads.

Personnel figuring in the announcement and their new posts include: Harmon S. Eberhard, executive vice president; William Blackie, who will coordinate with Peoria the administration of the Joliet and San Leandro plants and Caterpillar Tractor Co., Ltd., new British subsidiary; E. W. Jackson, vice president; Ralph M. Monk, vice president; W. H. Franklin, who will assume administrative direction of the Accounting and the Traffic and Order departments; and A. N. Whitlock, who will assume direct supervision of the Accounting.

Mr. Eberhard, who has been a vice president since 1942, will share with Executive Vice President A. V. Brown and President Neumiller the increasing responsibilities of top administration. He will continue to give administrative direction to the Research and Engineering departments, and as an executive vice president will be more available to consult with the director of manufacturing and other administrative heads.

A vice president since 1944, Mr. Blackie will continue administrative direction of the Merchandise department in addition to his new duties. He will, however, relinquish direct guidance of the Accounting and the Traffic and Order departments.

Retaining his present title, Controller W. H. Franklin will assume administrative direction of the Accounting and the Traffic and Order departments, relinquishing direct supervision of accounting to Mr. Whitlock.

Mr. Jackson, who has been director of parts and service since 1947, will continue administrative direction of those departments as a vice president. Vice President Monk will also continue his administrative direction of the Industrial and Labor Relations departments, which he has headed since 1938.

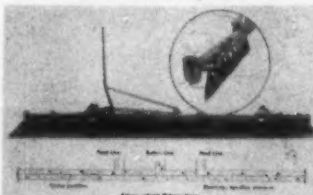
Mr. Eberhard is a native of Stockton, Calif., where he joined the Holt Manufacturing Co., Caterpillar's predecessor, in 1916, as a draftsman and designer. He is president of the Peoria Manufacturers Association.

Mr. Blackie was born in Glasgow, Scotland, and came to Peoria as controller for Caterpillar in 1939. He has spent several weeks recently in England in connection with formation of Caterpillar Tractor Co., Ltd. He was recently named to an advisory committee on commerce and industry at the University of Illinois.

Mr. Jackson is a native of Maryland who joined Caterpillar's San Leandro research engineering staff in 1928.

Mr. Monk, a native of Plymouth, Ill., became director of industrial relations at Caterpillar in 1938 following 11 years in Peoria as an attorney.

"Hot" Asphalt Spray Bar Announced by Bros



Above—Non-clogging, no-drip asphalt spray bar announced by Williams Bros company.

A new, non-clogging, no-drip asphalt spray bar to fit all distributors has been announced by the Williams Bros. Boiler and Manufacturing Co., of Minneapolis, Minn., developed by H. A. Cartwright, the bar, known as the Bros Spraymatic, is specially built for handling heavy bitumen material. It is a full circulating, 3-section hot bar, designed to eliminate non-uniform distribution, leaky valves, fat and lean streaks and clogged orifices.

Among the Bros Spraymatic design features are the positive end-to-end circulation system accomplished by means of a center partition the length of the bar; the new, non-clogging, self-screening nozzles and the ring passed, non-leaking, 45-degree swing joints.

The positive end-to-end circulation made possible through the unique design of the Bros Spraymatic, melts any slugs in the lines when nozzles are opened, they all fire simultaneously, resulting in straight line starting and stopping and uniform distribution on the road.

Specially designed nozzles are directly attached to the bar with nozzle slots only one inch from the bar, and milled at a fixed angle for a positive parallel fan pattern to eliminate overlap and puddling. A built-in, self-cleaning, disc type shut-off valve is located right at the fan slots, eliminating danger of clogged or frozen orifices. Nozzle spring operating the disc also serves as a strainer, and nozzle valves have tapered seats to provide sharp material cut-off.

With the new, non-leaking, 45-degree swing joints, end sections are easily swung up for traveling without interfering with the full circulation of the bar. Whether an end section be up for traveling or in spraying position, no serious damage results from striking an obstruction because of the joint's swinging action when the obstruction is hit.

Bros Spraymatic bars are built with nozzles on either 4 or 6-inch centers and in all lengths up to 24 feet. Bars up to 12 feet are furnished with a 7-foot center section and right and left end sections. Bars over 12 feet have flanged extensions bolted on.

Pulls 400,000 Pounds of Airplane

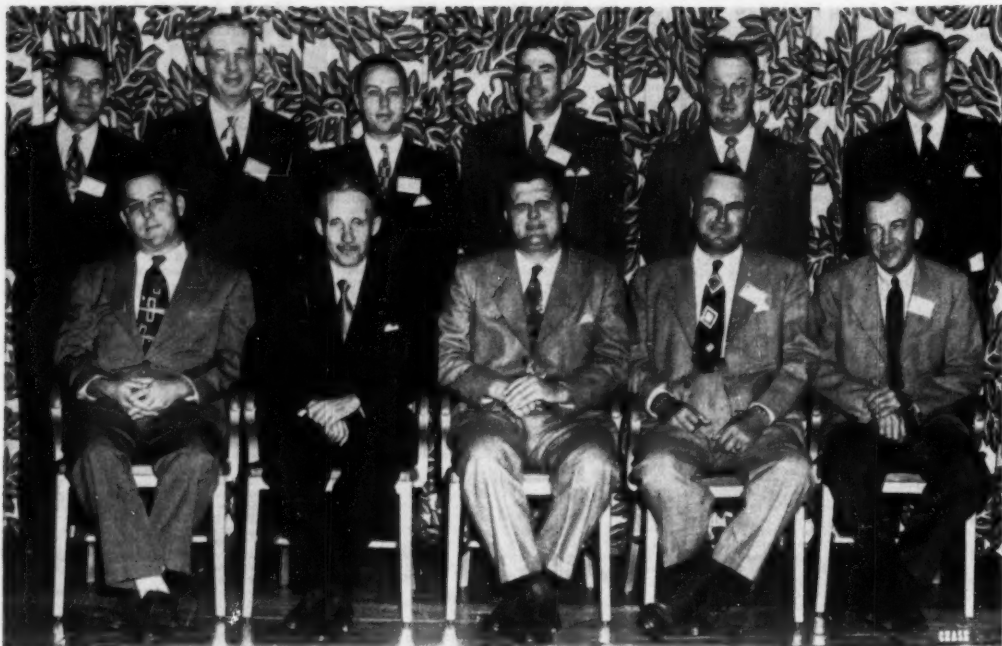
The Euclid Road Machinery Co., Cleveland, Ohio, recently delivered a rubber-tired tractor of unusual design to the Air Materiel Command at Wright-Patterson Air Force Base in Dayton, Ohio.

Officially designated as the A-2, this tractor was developed as a towing unit for the huge B-36 bomber. It is powered by a 190-horsepower General Motors diesel engine with Allison torque converter transmission. Special attachments enable the A-2 to pull jet aircraft and their ground power plants to take-off positions. Dimensions are: 18 feet in length, 8 feet wide and 6 feet high with a ground clearance of 12 inches. Tires are 16 (8) x 25.

The A-2 can travel forward, backward or sideways and makes a complete turn in 17 feet. The operator cab can be hydraulically elevated 20 inches above the top of the tractor and a separate personnel cab can be tilted to permit easy access for maintenance and service.

Below—Rubber-tired tractor delivered by Euclid Road Machinery Co. to Ohio Air Base.





Above—Officers elected at the White Sulphur Springs convention of the Carolinas Branch of Associated General Contractors of America were, left to right: Front Row—C. P. Ballenger, Jr., vice president; H. S. Crain, president; N. K. Dickerson, Jr., retiring president; E. D. Sloan, ex-officio, president in 1949; Robert Patten, managing director. Directors in the back row are: W. L. G. Mackenzie, G. E. Moore, Walter W. King, C. P. Street, R. E. Fulmer, Marion R. Cowper, E. B. Towles and Beaumont Whitton were not present when the picture was taken.

Carolinas Branch Holds Largest Convention

THE largest convention in the history of the Carolinas branch of the Associated General Contractors of America was held October 29 to 31 at the Greenbrier Hotel, White Sulphur Springs, W. Va., with 500 members, their families and guests gathering to discuss construction industry problems, elect new officers and hear addresses by national and chapter authorities, many of whom are prominent in the American construction picture.

H. S. Crain, president of Crain & Denbo, Durham, N. C., was elected president, succeeding N. K. Dickerson, Jr., the incumbent; C. P. Ballenger, Jr., head of the Ballenger Paving Co., Greenville, S. C., was chosen vice president, and C. P. Street, secretary-treasurer of McDevitt & Street Co., Charlotte, N. C., again selected treasurer. Robert Patten is executive secretary.

New directors are: R. E. Fulmer, president of General Construction Co., Columbia, S. C.; E. B. Towles, vice president of Towles-Cline Construction Co., Wilmington, N. C.; Beaumont Whitton, vice president of Southeastern Construction Co., Charlotte, N. C., and W. L. G. Mackenzie, president of Fiske-Carter Construction Co., Spartanburg, S. C.

Directors previously elected are: W. W. King, Jr., secretary-treasurer of King-

Hunter, Inc., Greensboro, N. C.; T. R. McMeekin, president of McMeekin Construction Co., Cheraw, S. C.; M. R. Cowper, vice president of Barrus Construction Co., Kinston, N. C.; G. E. Moore, president of G. E. Moore Co., Inc., Greenwood, S. C.

N. K. Dickerson, Jr., president of Dickerson, Inc., Monroe, N. C., the retiring president of the Carolinas branch, becomes an ex-officio member of the board of directors.

F. G. Heath, district manager for Mexican Petroleum Co., Raleigh, N. C., was re-elected chairman of the associate member division. Members elected to the advisory board of this division were A. S. Johnson, Salisbury, N. C.; Sim W. Grady, Columbia, S. C., and W. Vance Baise, Raleigh, N. C. Other members are James J. Harris, Charlotte, and J. S. Sands, Macon, Ga.

National Associated General Contractors officials who appeared on the program included Walter L. Couse, president, of Detroit; H. E. Foreman, managing director, of Washington; Arch N. Carter, manager of the highways division, and W. A. Snow, manager of the building division, as well as Lt. Gen. Eugene Reybold, executive vice president of the American Road Builders' Association, and Rear Admiral Joseph F. Jelley, Jr., chief of the

Navy's Bureau of Yards and Docks.

President N. K. Dickerson, Jr., speaking at the general session, stressed the agreement by which the Carolina Road Builders' Association becomes a part of the Carolinas Branch. Membership in the group now numbers 951, 291 of which are general contractors, and 644, associate members, all aimed at the national slogan—Skill—Responsibility—Integrity.

Mr. Dickerson pointed to the interdependency of the national and chapter organizations and outlined the program, which among other aims includes:

Development and preservation of legitimate markets for general contractors;

Cooperation with other groups in the interest of improved contract documents, administrative procedures, specifications, design and economical construction methods;

Improvement and stabilization of the labor situation.

"We have entered a period of great uncertainties," he warned, and "there is no stability within which the contractor can take cover." With steadily climbing labor costs go increases in material prices, he observed, "there are now shortages of some materials and more difficulties are yet to be encountered along this line."

Robert Patten, the Carolinas Branch

executive secretary, elaborated on President Dickerson's address and said membership growth in less than four years represents a gain of 83 per cent in contractors and 122 per cent in associates. The expansion has required an increase in both office space and plan room facilities.

The Carolinas Branch now occupies the entire fourth floor of the Builders Building at Charlotte. Plan room space has been doubled at Greensboro. A new building is being occupied at Columbia, where requirements outgrew the available space at the old location. Overflow activities at Raleigh will mean that offices there will soon move to more spacious and convenient quarters.

Other activities described by Mr. Patten included the public relations program, continuation of the labor relations policy that "a workman should be paid a fair wage for his work in keeping with the cost of living," the fine bulletin issued each week and the cooperation of the Carolinas Branch in forming three army engineer reserve units.

National President Walter L. Couse emphasized the functions of the country-wide organization, citing the steps taken to clarify the drastic restrictions of Order M-4 issued by the National Production Authority, which since has revised the objectionable section as the result of the prompt action of the A.G.C. at Washington.

Order M-4 was further discussed by National Managing Director H. E. Foreman, who made the vigorous A.G.C. protest to Administrator William H. Harrison for clarification of the controversial Section 22.2. Subsequently, modification reads that "in the event that increasing material shortages clearly indicate the necessity for such action in the national interest, N.P.A. may further limit the commencement of construction of additional types of projects which do not support the defense effort or increase the nation's productive capacity."

A.R.E.A. Executive Vice President Eugene Reybold reminded his audience "of the staggering highway crisis that exists in America today, a crisis that can be traced to inadequate road construction throughout the depression thirties, to enforced wartime neglect throughout the early 1940's and to the enormous increase in motor vehicles since the war," and that "we are in for still more problems as cars roll off the production lines at an unbelievable rate."

General Reybold answered the question as to whether we can afford to undertake a highway program of the size indicated by current needs with the statement: "After investing thirty-five billion dollars in highways and additional billions in the purchase of upwards of 48,500,000 motor vehicles, we can't afford not to furnish the up-to-date highway network that is necessary," continuing:

"It is essential that we revitalize our highway plant. We're faced with making the choice and it is a choice which will have to be made soon, of undertaking a costly highway construction and reconstruction program or continuing the unbusinesslike practice of sinking money in-

to an even costlier and worn-out network of traffic arteries, all of which is requiring an ever-growing share of the available highway funds for routine maintenance work."

Highway Division Manager Arch Carter reported that Bureau of Public Roads statistics showed a rise of from four to five per cent in the composite mile cost index during the third quarter of 1950, mostly in September and October, and that a further increase is expected, and said the termination of contract clause is absolutely necessary.

He further reported that the federal aid airport program has been extended for five years with a billion dollars yet to be spent; that the rural electrification program has been cut and that three hundred million dollars in work remains to be let this year.

W. A. Snow, manager of the national A.G.C. building division, sought the answers to questions on delays, costs, controls, precautions and markets. His predictions are:

That present building under way should be completed without running into too many snags as far as availability of labor and materials is concerned, although some jobs may be slowed down by delays in delivery of steel and cement;

That certain types of construction not directly related to defense or vital to health, safety and welfare can be stopped under Order M-4;

That every effort should be made to have termination provisions included in contracts to protect the contractor and the owner in the event of a shut-down by the federal government;

That the market, particularly in 1951, should be fairly good in such fields as schools, churches, hospitals, commercial and industrial and public works.

Admiral Joseph F. Jelley revealed that the funds appropriated for the armed services include \$133,000,000 for naval shore construction, many projects of which will be world-wide. Spending money for military construction and munitions, he declared, "can only contribute to an adequate defense. It cannot assure it."

He appealed to the A.G.C. members present to help develop new construction equipment and high-speed construction methods and to assist in training men for military construction forces such as the Seabees and Army Engineers. "You can do both these jobs with no more effort than you're expending now, the only difference in your operations will be for you to share the initiative in preparing this country for an emergency."

Navy engineers, he announced, have developed a diesel-powered pile hammer that contains the power mechanism in the hammer itself. They have also devised a light-weight, heavy-duty motor grader with a shipping weight of three-fourths that of a conventional model. They also have a light-weight diesel generator which weighs 3,000 pounds.

Reducing weight, Admiral Jelley said, is not only to increase mobility, but to transport equipment and materials in the least possible shipping space. The same idea applies to prefabricated building ma-



Above — H. S. Crain, newly elected president of the Carolinas branch of Associated General Contractors of America, Charlotte.

terials, particularly those that can be shipped with the least waste space and which can be assembled in the shortest time.

Dr. Henry W. Jordan, chairman, and W. H. Rogers, Jr., chief engineer, of the North Carolina State Highway and Public Works Commission, and C. R. McMillan, chief highway commissioner of South Carolina, were among the state celebrities who talked before sessions of the convention.

Dr. Jordan pointed out the basic interdependence of highway departments and roadbuilding contractors. In the free marketplace, he said, the highway department is the buyer, and the contractor, the seller. If both groups remember this important business relationship, the best interests of the public will be served. Outlining the splendid progress made on the \$200,000 North Carolina secondary road program, he said it would not have been possible without the fine cooperation of the highway contractors.

Dr. Jordan, upon the request of President Dickerson, estimated the percentage of bond money spent for contract work as compared with the part spent by state

(Continued on page 50)

Below—Robert Patten, managing director, Carolinas branch of Associated General Contractors of America.



New Tulsa Office Building Cost \$6,000,000



Above—New \$6,000,000 First National Bank and Trust Building, Tulsa.

The twenty-story First National Bank and Trust building, Tulsa, Okla., constructed at a cost of approximately \$6,000,000, has been completed and is fully-leased, according to an announcement today by John W. Harris Associates, Inc., New York builders who served as owner's representative on the project.

Designed by the architectural firm of Carson & Lundin, also of New York, the building occupies a rectangular plot 100 by 140 feet at one of Tulsa's busiest intersections. In addition to providing bank facilities for the First National Bank and Trust Company in the basement and on the second, third and fourth floors, the structure houses main offices of the Sun Ray Oil Corp. on its upper six floors. Other tenants occupy the intermediate stories.

Access to the second floor main banking room is by modern, high-speed escalators, as well as by elevators.

A ground floor arcade is one of the building's principal architectural features. This was achieved by partially enclosing the building at the street level and allowing pedestrian traffic to flow through an open passage adjacent to

shops and the main lobby of the building.

Another unusual aspect of the building is that its boilers are located on the twentieth floor instead of in the conventional basement location. One reason for this arrangement was a result of the bank's requirements for vault space in below-ground portions of the building. A 1200-ton refrigeration plant provides air conditioning for the entire building.

The architectural treatment of the building is modern. Strips of continuous steel sash extend around three sides of the building. Spandrel walls are horizontal banks of grayish, slightly glazed brick which terminate with vertical borders of white marble. The entire width of all offices is faced with glass in order to provide maximum light, and the west side of the building is treated with a special glass to reduce heat from the afternoon sun.

Working under supervision of John W. Harris Associates, Inc., the Manhattan Construction Co. of Muskogee, Okla., served as general contractors. Edwards & Hjorth of New York were structural engineers, and Hamel-Gaynor Associates were mechanical engineers.

A.E.D. Sees Record Meet Registration

Registrations for the 32nd Annual Meeting of Associated Equipment Distributors, scheduled for January 28-February 1, 1951, at the Stevens Hotel in Chicago, are expected to approach the record-breaking total of 1700 distributor and manufacturer members who attended last year's convention.

Heading A.E.D.'s 1951 Convention Committee is F. J. Fitzpatrick of Parker-Danner Co., Hyde Park, Mass., who also served as a member of the 1949 and 1950 convention committees. Other committee members are S. F. Laskey, Northwestern Equipment Co., Fargo, N. D.; H. J. Hush, Griffin Equipment Corp., New York, N. Y.; W. W. Kershaw, The Robinson-Kershaw Co., Salt Lake City, Utah; and S. J. Oechsle, Metalweld, Inc., Philadelphia, Pa.

For the third year, a manufacturers' convention suggestion committee will assist the convention committee in formulating convention plans, including arrangements for a Manufacturer-Distributor Day program, to be held the closing day.

According to Convention Committee Chairman F. J. Fitzpatrick, of Parker-Danner Co., Hyde Park, Mass., the 1951 program will feature several distributor forums and a joint distributor-manufacturer panel, the latter to be the closing session of the four-day program. Highlighting the social activities will be the traditional Early Birds' Breakfast in honor of President C. F. Halladay, Halladay-Dettman Co., Sioux Falls, S. D., and the President's Reception of January 29th. The Annual Banquet will be held on January 30. Both the opening luncheon on January 29th and the closing luncheon on February 1st will be addressed by outstanding speakers. New officers and regional directors for 1951 will be inaugurated at the Installation Luncheon on January 31st.

The theme of the 1951 Annual Meeting is "Scarcities, Taxes, War—Where Do We Go From Here?"

Engineer Centennial Planned at Chicago

Plans underway to celebrate the A. S. C. E. Centennial of Engineering in Chicago in 1952 were announced by the Board of Direction at its Toronto meeting. "The project will provide opportunity for American industry to emphasize its contributions to the advancement of civilization and to pay tribute to the free enterprise system that has made this progress possible." In addition to civil engineering, the celebration will include the entire engineering field, with the other societies joining forces to produce an event of international significance.

Maj. Lenox R. Lohr, president of the Chicago Museum of Science and Industry, has been elected president of the not-for-profit corporation, Centennial of Engineering, 1952, Inc., which has been set up to carry out the project and direct the overall activities connected with it. His aid was sought because of his experience

(Continued on page 44)

Cumberland gives you

ALL 10!

The 10 basic requirements of high quality masonry cements

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2. BODY

3. STRENGTH

4. YIELD

5. COLOR

6. ADHESION & BOND

7. NEGLIGIBLE SHRINKAGE

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10. NON-EFFLORESCING

Every sack of Cumberland Masonry Cement that leaves the plant is of the highest quality that modern science and production methods can make it. Every sack measures up to the most exacting standards on each of the ten basic requirements for high-grade masonry cement. Many of the South's most beautiful buildings, many of its greatest construction projects, present ample proof that Cumberland Masonry Cement, with its pleasing light color, makes better mortar.

Through the months of 1950 we've discussed, point by point, the fine qualities of Cumberland Masonry Cement—but we haven't even mentioned Cumberland's exceptional service. It's the kind of service that assures you fast, efficient delivery . . . clean, unbroken bags . . . friendly, personal help from our Service Engineers—all Cumberland extras that mean your complete satisfaction.

Any quantity of Cumberland Masonry Cement will be shipped in mixed carloads with other types of Cumberland Cement.



Cumberland
PORTLAND CEMENT COMPANY

Chattanooga Bank Building • • Chattanooga 2, Tennessee

Portland — High Early Strength — Air Entraining — Masonry

Engineer Centennial Planned at Chicago

(Continued from page 42)

as general manager of "A Century of Progress," the Chicago World's Fair of 1933 and 1934, and as president of the Chicago Railroad Fair of 1948 and 1949.

The celebration, including an exposition and a convocation of engineers, will occupy the approximate period, July 1 to September 30, 1952, and will be centered in the Museum of Science and Industry in Jackson Park, Chicago. Already housing the world's greatest collection of industrial and science exhibits, the museum is ideally adapted to the objectives of the celebration.

According to preliminary plans, the observance will consist of a variety of activities for both the general public and the professional engineer. Opening in early June will be a new permanent educational exhibit installation designed to bring home to visitors the tremendous contributions made by engineering during the past 100 years to the development of the nation and the elevation of the American standard of living. There will be appropriate temporary exhibits by engineering and industrial firms. A stage production, opening at the same time, will be presented several times daily during the remainder of the summer. A dynamic show of high entertainment value, the production will utilize a great variety of full-size equipment in telling the human interest story of technical advancement.

The greatest convocation of the engineering profession ever held is scheduled to take place between September 3 and 13. Each of the other E.J.C. constituent societies has accepted an invitation to unite with A.S.C.E. in the centennial celebration, each planning to hold a full-scale meeting during the convocation period. The American Institute of Architects and the Engineering Institute of Canada already have taken formal action to participate. Nearly a hundred other national, international and regional engineering societies will take part, as will the great engineering schools. The Department of State has stated its intention of collaborating with the centennial in arranging for participation of foreign and international engineering organizations. Assurance of sufficient facilities to handle the large number of participants is given by the Chicago Convention Bureau.

Each participating society will arrange and finance its own program in coordination with the others, while Centennial of Engineering, 1952, Inc., will be responsible for the exposition and for general coordination of other activities.

Coordinated regional programs in all parts of the country will provide an opportunity for local groups of the engineering societies to bring the centennial observation to their communities.

Plans for the international observance were made at a recent meeting in New York, attended by representatives of the Founder Societies. In addressing the group Major Lohr stated, "Engineers comprise about three-tenths of one per cent of the 150,000,000 people in the United States. Probably no other group has con-

tributed more toward developing the resources of the country, and bringing our standard of living to a level never before approached, than engineers. Yet—most of the other ninety-nine and seven-tenths per cent have little, if any, realization of that fact. To the public mind, a veil of mystery clouds understanding of engineering principles, methods, and accomplishment. . . . Our citizens do not know to what extent the welfare of our nation in peace and its salvation in war depend upon the accumulated and continuing results of engineering research and its application.

"The year 1952 marks the centennial of the founding of the American Society of Civil Engineers, the oldest national engineering society in the country. As such, it affords an appropriate time for bringing to the public the full story of engineering achievement."

Loan Guaranty Rights Outlined For Veterans

Veterans Administration has outlined conditions under which World War II veterans who have used their loan guaranty rights under the GI Bill may have their entitlement to V-A-guaranteed loans for homes, farms and business restored under certain special circumstances.

The Housing Act of 1950 authorized V-A to restore the amount of loan guaranty entitlement used by a veteran to purchase property which subsequently is taken over for public use, destroyed by fire or other natural hazard, or is "disposed of because of other compelling reasons devoid of fault on the part of the veteran."

A further condition is that V-A must have been relieved of liability in connection with the government guarantee on the loan with no claim having been made against it.

In defining "other compelling reasons," V-A said it first must be shown that failure to restore the entitlement would result in a "substantial hardship" to the veteran. Examples of conditions under which restoration may be made were outlined as follows:

1. Reasons of health, such as where a home is disposed of because the type of dwelling or climate of the locality is injurious to the veteran or a member of his family, as evidenced by a doctor's certificate;

2. Employment reasons, such as loss of employment which requires removal to another city or town, or where the veteran is transferred by his employer. In such cases V-A said the reason for moving must be one which could not have been anticipated at the time the property was purchased. Loss of temporary employment, or persons subject to an employer's rotation policy, as in the case of regular military personnel transferred periodically, do not qualify;

3. Such other reasons as V-A finds in individual cases to be "compelling," where disposal of the property became a practical necessity due to factors over which the veteran had no control.

V-A emphasized that entitlement cannot be restored if the veteran has been (Continued on page 46)

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INTERSTATE EQUIP- MENT COMPANY

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Chattanooga and Nashville,
Tenn.

NO OTHER Black Top Paver Offers SO MUCH!

Adjustments for correcting and holding course thickness are mechanical and positive; no delicate mechanism affected by cold or weather conditions.

More engine power — handles trucks easily.

Electric Screed Heating — simple in design — no fuel no hot spots — nothing — to burn help.

Wheel steering is smooth — no jerks on curves to cause hand work — the only paver with positive traction at all times.

Lays wide road or narrow — has laid 13 ft. road successfully; changes easily made.



Simplicity of Design. Hopper free from mechanism; Only one screed; Wheel traction; Easy up-keep; Long service without rebuilding.

An all round machine — the only paver fully recommended for all asphaltic mixes, stone, sand, slag, soil cement, etc.

Continuous Course Correction reduces cost of subgrade preparation and gives smoother pavement.

Screed action is slow — does not increase fines, cause spalling or shake machine apart.

Other advantages that mean lower cost operation and better road.

THE FOOTE COMPANY, INC.

Subsidiary of Blaw-Knox Co.
Nunda, New York



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TRADE MARK REGISTERED



Do you pour concrete? You can save money with the Direct Pour and the MultiFoote HighLift Boom. The MultiFoote Paver, equipped with the HighLift Boom will eliminate a crane, elevator, ramps and false work.

A PRODUCT OF THE FOOTE COMPANY, INC., NUNDA, N. Y.

MULTIFOOTE PAVER
FOR EVERY PLACE CONCRETE MUST BE POURED

Veterans' Loan Rights

(Continued from page 44)

not be restored where the veteran's mortgage indebtedness is assumed by a third party, with V-A remaining liable on the loan guarantee. Also, restoration will be made but once for any veteran, except in very unusual circumstances.

Prior to the GI loan amendments contained in the Housing Act of 1950, approved April 20, an eligible veteran was entitled to a V-A guarantee of 50 per cent of a real estate loan, up to a maximum guarantee of \$4,000. For veterans who have used none of their loan guaranty entitlement, the Act raised the home loan guarantee to 60 per cent of the loan, and a maximum of \$7,500.

V-A said that where a veteran had used none of his loan guaranty entitlement other than that which is restored under the new provision, he will be considered as having used none of his loan rights and, therefore, eligible for the higher guarantee.

Application for restoration of used entitlement should be made to the Loan Guaranty Officer of the V-A Regional Office which issued the guarantee on the loan. A written statement should be submitted setting forth the reasons for the request; details of the damage, destruction, condemnation, loss or disposal of the property; the amount realized from the sale, condemnation award or insurance settlement and the disposition made of it; and whether the property is to be restored.

In the case of requests based on reasons of health or employment, a doctor's certificate confirming the health factor, or a statement from the employer evidencing loss of employment or of transfer and the reasons for it, should be supplied.

Housing Loans Approved

President Truman has approved Public Housing Administration loans to local housing authorities in an additional 20 localities to enable them to plan 2,993 low-rent homes for some 11,972 persons in low income families, it is announced by Public Housing Commissioner John Taylor Egan.

The loans authorized total \$963,900. They will enable local housing authorities in 10 States and the Virgin Islands to plan more than \$25,440,500 of low-rent public housing.

Preliminary loans will provide for the surveys and planning work which must precede actual construction of public housing projects. This list of loans approved by the President under terms of the Housing Act of 1949 brings the total amount of preliminary loans approved so far to \$52,646,300 to cover planning of 278,164 units by local housing authorities in 562 localities.

The housing is to be built, owned and operated by the local housing authorities for rent to families whose incomes are so low that they cannot afford adequate privately-owned housing.

The Public Housing Administration will enter into preliminary loan contracts

with the authorities concerned as quickly as possible so that their work can proceed.

All of the loans authorized by the President are for housing developments the authorities plan to undertake in the next two years. These projects will form a part of the public housing program which the Housing Act of 1949 authorized to be constructed over a six-year period.

The approved list includes only authorities whose local governing bodies have formally approved the loan applications. This local approval is required by the Housing Act of 1949.

The preliminary loans authorized in the present list are intended to cover all the expenses which local housing authorities will incur for preliminary surveys, studies in connection with site selection, necessary appraisals, all architectural and engineering plans except final working drawings and the making of definitive cost estimates.

The full amount of the preliminary loan will be advanced in installments as it is required by the authority and upon certification by the authority of the purpose for which the money will be spent.

When a local housing authority's planning is sufficiently advanced so that it can submit a satisfactory program for developing its projects and can estimate costs accurately, the PHA will enter into a definitive financial aid contract with it.

These definitive contracts, which are also subject to Presidential approval, will provide for development loans and the annual subsidies required to maintain low rents in the completed projects.

A list of the loans approved in the Southern States by the President includes:

Alabama—

Housing Authority of the City of Hackleburg, 8 units, \$1,600 preliminary loan; Tuscaloosa Housing Authority, 500 units, \$150,000 preliminary loan.

Housing Authority of the City of Camden, 160 units, \$58,000 preliminary loan, Georgia—

Housing Authority of the City of Newnan, 100 units, \$40,000 preliminary loan; Housing Authority of Savannah, 800 units, \$210,000 preliminary loan.

Kentucky—

Winchester Municipal Housing Commission, 100 units, \$40,000 preliminary loan.

Texas—

Housing Authority of the City of Commerce, 75 units, \$30,000 preliminary loan; Housing Authority of the City of Paducah, 30 units, \$12,000 preliminary loan; Housing Authority of the City of Victoria, 130 units, \$49,000.

"Breaking Point" Conditions Seen on City Streets

Census figures showing that nearly three-quarters of the new residents in the nation's 12 largest metropolitan areas live in the suburbs—were cited recently as evidence "that near breaking-point conditions prevail on our city streets."

Lt. Gen. Eugene Reybold, executive vice-president, American Road Builders'

(Continued on page 48)

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ACME IRON WORKS
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ARKANSAS EQUIPMENT
CO., INC.
Little Rock, Ark.

BRANDEIS MACHINERY &
SUPPLY CO.
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CAROLINA TRACTOR &
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W. C. CAYE & COMPANY
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CONSTRUCTION
EQUIPMENT CO.
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FLORIDA EQUIPMENT
COMPANY
Jacksonville, Miami and
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H. H. MEYER CO., INC.
Baltimore 3, Md.

RISH EQUIPMENT CO.
Bluefield, Charleston and
Clarksburg, W. Va. and
Richmond and Roanoke, Va.
Cincinnati, Ohio

ROAD BUILDERS
EQUIPMENT COMPANY
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SOUTHERN STATES
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3 Hi-Boy Trukmixers, a Blaw-Knox Aggregate Batching Plant and Bulk Cement Plant . . . a complete Ready-Mix package earning money for Steele-Rice Co. The Blaw-Knox "Complete Package" of construction equipment includes: Paving Forms, Subgraders, Paving Spreaders, Finishing Machines, etc.

STEADY consistent production at lowest possible cost—that's Blaw-Knox performance that earns you profit on every construction job. Whatever your job—building big dams or bridges, small sewers or culverts, paving super-highways or Main Street—it will pay you to put your operations on a cost-cutting assembly-line basis with the Blaw-Knox "Complete Package" of construction equipment. It contains everything you need to solve your concrete problems, from material handling to finished slab. Write for complete details, or see your nearest Blaw-Knox distributor.

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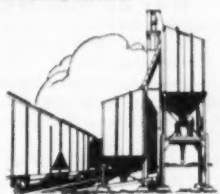
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CLAMSHELL BUCKETS in a wide range of types and sizes for re-handling, trenching, dredging or hard digging.



CONCRETE BUCKETS speed work, cut concrete pouring costs. Built to handle huge quantities of low slump concrete.



BULK CEMENT PLANTS for accurate batching and handling large volumes of cement.



HI-BOY TRUKMIXERS with the revolutionary revolving hopper permit faster charging and discharging with minimum seal maintenance.



STEEL CURB AND GUTTER FORMS, a complete form system for every curb, curb and gutter, integral curb, special curb and sidewalk job.

Get Complete Details from your Nearest **BLAW-KNOX** Dealer

Valdese Expansion More Than Doubles Capacity

Valdese Manufacturing Co. of Valdese, N. C., has finished its new dye-house which will more than double present production. The building itself is about completed and most of the machinery has been received. Within thirty days the company should have a capacity in excess of 100,000 pounds per week of dyed yarn.

All kiers which are being installed by Gaston County Dyeing Machine Co. are of stainless steel and an aluminum tank for the storage of peroxide used in bleaching has been purchased and will be installed soon. Winders, necessary to take care of packages for dyeing and back-winding on cones for the knitting trade, are in process of installation, also. Twisters are being added so that various combinations of either cotton or synthetic yarns can be made.

The new plant when completed will be a complete winding, dyeing, processing,

and shipping operation. A modern laboratory under the direction of an European chemist is now being set up along with the necessary offices for doing the clerical and other paper work which may be necessary.

Valdese Manufacturing Co. has been a leading producer of natural yarn for hosiery, underwear, and sportswear for a long time. The company has been in the dyeing business about 25 years and have the reputation of furnishing one of the best yarns made in this field.

Although most of their efforts have been confined to furnishing yarns for the knitting trade, the company is also equipped to do package dyeing commercially on any type of yarn that might be needed in the textile trade. When the operation is completed it will be one of the largest and most modern installations for this work to be found in the country.

Building Dollar Volume Hits All-time High

Building skyrocketed to an all-time high in 26 North Carolina cities in August, the State Department of Labor reports.

The cities reported building expenditures totaling \$16,369,003, according to Labor Department statistician C. H. Pritchard.

The August figure was 48 per cent higher than the city building total for July and 135 per cent above the figure reported by the same cities in August, 1949, Pritchard said.

Reports from some 50 smaller municipalities, which will be tabulated as soon as all reports are in, probably will add another \$2,000,000 to the August total.

Non-residential building valued at \$8,210,682 accounted for more than half of city total in the prior month. This was more than triple the July non-residential building figure.

Previous month's house and apartment building, valued at \$6,898,263, was three per cent below the July level. More striking than the slight drop in housing expenditures, however, was the fact that the number of family dwelling units provided in the 26 cities fell to 981 during August, a 24 per cent decrease from the July figure of 1,289 dwellings. The August total of new dwellings was the lowest monthly total reported since last February.

Meanwhile, the average estimated construction cost of dwellings authorized in the cities increased 27 per cent over the month—from \$5,524 in July to \$7,032 in August—according to the cost estimates reported by municipal building officials.

The cities reported a total of \$1,260,058 in addition, alteration and repair jobs during August.

Six cities reported more than \$1 million each in building expenditures. They were: Raleigh \$3,349,180, Charlotte \$2,771,519, Durham \$2,309,958, Greensboro \$1,657,868, Winston-Salem \$1,298,849, and Wilmington \$1,189,413.

LeTourneau Executives Visit Raleigh Distributors

Face to face contact with its distributors over the nation was obtained in 16 days by R. G. LeTourneau, Inc., Peoria, Ill., earthmoving equipment manufacturer, when three LeTourneau executives, traveling in a company plane, made three giant swings over the country. The trio conferred with the heads of distributorships in a series of six sectional distributor planning sessions.

The meeting with distributors in the Carolina area was held in Raleigh at Hotel Carolina.

With the top executive of each distributorship speaking for his organization, the men from LeTourneau's administrative offices gleaned distributors' views on their local conditions and their merchandising activities.

The three giant swings covered a total distance of 8,820 miles . . . consumed 42 flying hours. Handled on the first swing of 4,830 miles were meetings at Salt Lake City, Portland, Ore., and Fargo, N. D. On the 2,310-mile second swing the LeTourneau men met with distributors around Raleigh, N. C., and Philadelphia, Pa. The 1,680-mile third and final swing was to Dallas, Tex.

The "flying trio" from LeTourneau consisted of Roy E. McCluskey, vice president and general sales manager; R. P. Nichols, domestic sales manager, and Lloyd Rager, assistant advertising manager. At each meeting, at which Mr. Nichols presided as chairman, Mr. McCluskey gave management's picture of the overall sales program, and the effect of the current war on company operations; Mr. Nichols presented details on the company's sales and market program, as well as new product information, and Mr. Rager gave highlights of the company's advertising and promotional program.

In addition, each meeting saw a special presentation of three new color films the company has produced for distributor use in merchandising activities. These films

are on new line tools manufactured by LeTourneau—the high-speed, rubber-tired Tournadozer; the Model C Tournapull; and LeTourneau hauling units—end-dump Tournarocker and bottom-dump Tournahopper.

Active participation of all attending the meetings was obtained by allotting each distributor a period of time to present his opinions on local trends and company programs, thus assuring that a representative and nationwide cross-section of factors affecting sales was procured by the company for its use in the planning of their operations.

Assurance that this was no "file and forget" affair on the part of LeTourneau was given distributors by presentation of a chart which listed 14 developments put into effect since a similar trip made last year. Distributors in all parts of the country credited these developments as being greatly beneficial to them in their past year's operations.

Commenting on this series of meetings, Mr. McCluskey declared:

"We're mighty happy and proud over the fine distributorship relationship LeTourneau enjoys. We, as a manufacturer, are constantly on the alert to help all of our distributors do a better job of supplying modern construction tools to the users of our products."

Streets at Break Point

(Continued from page 46)

Association, oldest national good roads organization in the country, pointed out:

"America's 12 largest metropolitan areas reported a total increase of 6,530,675 in their populations. Of these, only 1,836,601 live in the cities proper, and the other 4,694,074 in nearby areas. Each morning, these people must drive or be transported into town where they are employed, and each evening, in order to get home, they must use roads and streets which patently have not been made ready for such a decentralized way of life."

Citing census figures showing suburban growth accounted for from 65 per cent (Chicago and Detroit) to 98 per cent (as was the case in Pittsburgh where only 2,041 of the 110,314 area population increase was within the city limits) of the total metropolitan areas gains, Gen. Reybold said it was "small wonder" that a "flood of motor vehicles, unleashed twice each day," had "inundated" major traffic arteries linking suburban areas with the center of major cities.

"City officials have had to accept the fact that prevention of such 'floods' is neither possible nor desirable," he added. "Flood" control, despite its expense in metropolitan areas, is possible and must be undertaken if the economic life of the cities is not to be throttled by congested streams of motor vehicles."

The metropolitan area figures listed by area increase, city increase, increase outside of city, per cent in city and per cent in suburbs, are:

New York: 1,177,304, 388,615, 790,689, 33%, 67%.

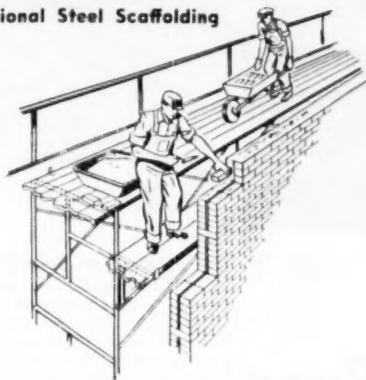
Chicago: 668,602, 235,037, 433,565, 35%, 65%.

(Continued on page 50)

BUILT-UP Scaffolding for every construction need

"TROUBLE SAVER"

Sectional Steel Scaffolding



Prefabricated—tubular steel—welded construction—all parts interchangeable—easily assembled without tools for a wide variety of jobs, indoors or out. Ideal for masonry construction.

GOLD MEDAL TUBELOX SCAFFOLDING



(STEEL OR ALUMINUM)

Only four basic parts used. No job too difficult—extreme height, unusual shapes and uneven ground present no problem. Use indoors or out.

Write For Free Bulletin PSS-12, 10 PTS and PTS-15(A) Describing How These Products Save Time and Money on Construction Jobs.

Complete Nation-Wide Scaffolding Service
WHAT you need WHERE you need it WHEN you need it
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For Greater Safety...Efficiency...Economy

THE PATENT SCAFFOLDING CO., Inc.

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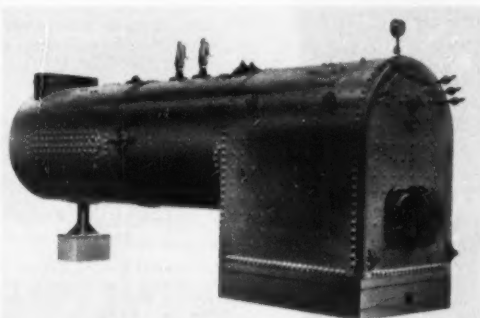
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Lucey Portable Steam Boilers are ideal for asphalt operations. You can depend on Lucey Boilers to deliver the steam—all you want, when you want it. Here are a few facts:

1. 5 Standard sizes from 40 H.P. to 150 H.P. Larger boilers up to 350 pounds working pressure also available.
2. Portability—designed especially to transport easily. Just the thing for road jobs.
3. Adaptable to any type firing—oil, gas, automatic or hand-fired coal.
4. Minimum upkeep expense because of simplicity of design. Plenty of handholes for cleaning. Manhole on top.
5. Large reserve of steam for peak loads. This is an excellent feature not often found in portable boilers.



Lucey Boilers have been used all over the world for more than 30 years. Their safety features well exceed all ASME and API Boiler Code requirements.

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Write today for the Lucey folder "Buy The Right Boiler For Your Needs." Gives many boiler facts and specifications. No obligation.

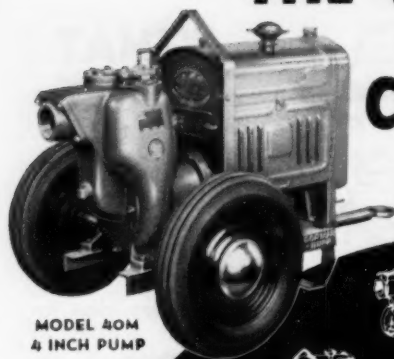


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THE WORLD'S MOST COMPLETE LINE !



MODEL 40M
4 INCH PUMP



Gorman-Rupp answers your Pumping Problem

Come to us with your pumping problems. We can furnish you with any size of self-priming centrifugal pump ranging in capacity from $\frac{3}{4}$ inch, 1000 GPH to the big 10 inch, pumping 240,000 GPH.

Gorman-Rupp Pumps are guaranteed in plain language by us and our distributors. Write us about your pumping problems—ask for a copy of our guarantee.

*New Contractors' Pump Bulletin 8-CP-11
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A complete line of Engine Powered and Electric Motor Driven, Self-Priming and Non Self-Priming Centrifugal Pumps — Contractors' Pumps — Mining Pumps — Industrial Pumps — Trash-Type Pumps — Petroleum Pumps — Irrigation Pumps.

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Amory, Mississippi

STATE MACHINERY & SUPPLY CO.

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WILSON-WEESNER-WILKINSON CO.

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ELPHINSTONE, INC.

Baltimore, Md. and Washington, D. C.

TAG EQUIP. CO., Chattanooga, Tenn.

INGERSOLL CORP., Shreveport, La.

PRIESTER MACHINERY COMPANY

Memphis 5, Tenn.



GORMAN-RUPP COMPANY
MANSFIELD, OHIO

Streets at Break Point

(Continued from page 48)

Los Angeles:	1,414,559,	449,759,	954,800,
32%,	68%.		
Philadelphia:	452,093,	125,876,	326,217,
28%,	72%.		
Detroit:	620,513,	214,165,	406,348,
65%,			
Boston:	175,747,	17,736,	158,011,
90%,			
San Francisco:	751,680,	125,845,	625,835,
17%,	83%.		
Pittsburgh:	110,314,	2,041,	108,273,
98%,			
Cleveland:	190,289,	31,210,	159,079,
84%,			
Washington:	484,274,	129,143,	355,131,
27%,	73%.		
St. Louis:	242,341,	36,475,	205,866,
89%,			
Baltimore:	242,959,	82,709,	160,250,
66%,			

Carolinas Branch Meet

(Continued from page 41)

forces. Approximately 35 per cent was spent for force account; about 25 per cent was set aside for stabilization and from six to eight per cent for bridge construction. The overall picture indicated that 65 per cent was being spent for contract work and about 35 per cent on force account.

Since January 1, it was disclosed by Mr. Rogers, North Carolina has let more than \$52,000,000 worth of construction to contract and expects to continue this large volume of work during the next two years. He stated that the North Carolina state highway commission has always had favorable relations with road-building contractors who are a "vital and necessary adjunct" to the commission's operations.

Chief Commissioner McMillan of South Carolina told what his state expects to do in the next twelve months. About \$20,000,000 will be expended in that period, he said, this being an average annual program. He reported that there would be no change in the South Carolina highway administration within the next year and that most of these funds would be spent on the primary system.

Frank Turner, engineer for the Budget Bureau at Raleigh, N. C., spoke on the \$130,000,000 building program of North Carolina. Approximately \$50,000,000 remains at present. Replying to the question as to why the entire fund had not been spent, Mr. Turner said the planning was somewhat slow although at the present time he felt the planning end was somewhat ahead of the general contractors part in the program.

Frank H. Conner presided at the breakfast meeting of the wage stabilization committee. The luncheon meeting of the highway and public works contractors division was led by G. E. Moore in the absence of T. R. McMeekin; Walter King was chairman at the building division luncheon meeting. F. C. Heath guided the associate member division at its luncheon meeting, where W. E. Dehman, Raleigh radio commentator, told of his trip behind the Iron Curtain.

(Continued on page 52)



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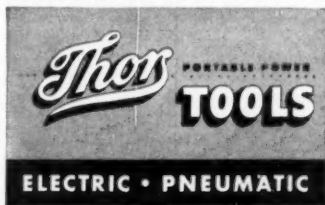
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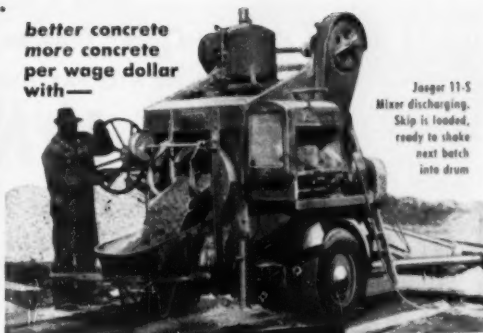
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Savannah, Ga., Morgan's, Inc., 111 West Broad Street
Statesville, N. C., Interstate Equipment Co., West Bldg.
St. Louis 10, Mo., E. F. Marsh Co., 4030 Chouteau Ave.
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Tyler, Tex., D. M. McClure Equipment Co., Inc., 220 North Fenton Street
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Cumberland Construction Jobs Include Roads, Buildings

Two state highway projects, two county road jobs, a downtown office building, a new chain store, nearby school and factory projects, are included in construction activity in the Cumberland, Md., area, according to an announcement by H. W. Smith, manager of the local chamber of commerce.

One of the state road projects involves the relocation of Route 40 at Sideling Hill and will probably be finished next summer. Resurfacing and widening of about six and one-half miles of Route 220 includes construction of an approach to a new bridge now nearing completion over the Potomac River and the Baltimore & Ohio and Western Maryland railroads. Two county widening and resurfacing jobs are also under way.

Work was recently started, Mr. Smith states, on a new building in the downtown section for occupancy by Monumental Life Insurance Co. Contract price was \$56,000. A New York chain store organization has announced its intention to erect a Cumberland building with space for two stores.

Plans are now being drawn for a new pajama factory for the Berkowitz Company. This will be located in Frostburg and is estimated to cost \$250,000. The award has been made for a new school to be located at Wiley Ford, W. Va., just across the river from Cumberland. Cost of the building is placed at \$99,000.

September established a recent record for building permits in Cumberland. The thirty-five permits totaled \$99,500, this being the highest since September of 1948, when a similar number totaling \$136,800 were issued. Of the current September permits, 20 were for new construction and 15 for additions or improvements.

Carolinas Branch Meet

(Continued on page 30)

The convention passed resolutions condemning enactment of retroactive taxes; appealing for revision of the M-4 order, which was changed before the meeting was over; taking a stand on the payment of premium wages and recommending an emergency clause in contracts by which reasonable adjustment can be made for additional costs and cancellation of the contract in event of stoppage of work by government order.

West Virginia Projects

(Continued from page 36)

Co. Clarksburg, W. Va., \$122,945.
FREESTON—Proj. S-575 (1), grading, Keeley Construction Co., Clarksburg, W. Va., \$275,205.
WOOD & PLEASANTS—Proj. F-182 (16), paving, Keeley Construction Co., Clarksburg, W. Va., \$280,263.
HANCOCK—Proj. F-175 (14), bridge, Carl J. Jacobson, Inc., Pittsburgh, Pa., \$190,988.
HUNTINGTON—Public Buildings Administration, Washington, D. C., plans new federal building, \$4,700,000.
MORGANTOWN—West Virginia University plans \$9,200,000 program for establishment of four-year medical and dental school.
PARKERSBURG—City let contract to Southeastern Construction Co., Charleston, \$587,624, for Franklin Junior High School.
WEBSTER SPRINGS—City plans 24-bed Webster County Memorial Hospital, \$360,096.
WEIRTON—City plans \$3,000,000 general hospital of 134-bed capacity.

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21	0.167	0.230	0.65	0.785	—
3	0.374	0.375	0.11	1.178	0.262
4	0.668	0.500	0.20	1.571	0.350
5	1.043	0.625	0.31	1.963	0.437
6	1.502	0.750	0.44	2.356	0.526
7	2.044	0.875	0.60	2.749	0.612
8	2.670	1.000	0.79	3.142	0.700
9	3.400	1.128	1.00	3.544	0.790
10	4.303	1.270	1.27	3.990	0.889
11	5.313	1.410	1.58	4.430	0.987

*Bar numbers are based on the number of 1/8 inches in the nominal diameter of the section.

†Bar number 2 in plain rounds only.

‡Bars numbered 9-10-11 correspond to former 1" sq., 1 1/8" sq., and 1 1/4" sq. sizes, and are equivalent to those former standard bar sizes in weights and nominal cross-sectional areas.

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South's Contract Awards Up This Year

(Continued from page 9)

as possible next year without inflation and to continue to channel the bulk of it to veterans and families of moderate means, where the need is greatest. They would be the ones who would be hit first and hardest if we did nothing to meet the situation."

Low-rent public housing is to be continued as a part of the country's housing program, but it "must be carried on so as not to contribute to inflation or impinge on defense requirements," it was stated last month by B. T. Fitzpatrick,

deputy administrator of the Housing and Home Finance Agency. Limitations on public housing in the last half of 1950 are a maximum of 30,000 construction starts.

In a directive which was described in construction circles as more drastic than imposed in World War II, the National Production Authority prohibits the start of work on amusement buildings, including bowling alleys, stadiums, night clubs, race tracks and swimming pools. Slight modification was later made.

Value of new construction put in place throughout the country during October

amounted to \$2,700,000,000, or four per cent less than the \$2,800,000,000. A decline in private homebuilding was the principal cause of the drop. Most types of non-residential building in both the private and public fields increased.

The departments of commerce and labor, which issued the estimates, say that in the first ten months of this year, new construction with a total estimated value of \$22,800,000,000 was put in place, this being twenty-two per cent more than the total for the comparable period of last year.

Construction costs have risen at the rate of one per cent a month in the last quarter, according to the American Appraisal Co. The rise in September was

(Continued on page 36)

PRIVATE BUILDING

(Assembly, Commercial, Residential, Office)

	October, 1950	Contracts to be Awarded	Contracts Awarded First Ten Months 1950
Ala.	\$1,666,000	\$3,655,000	\$14,068,000
Ark.	4,153,000	245,000	7,544,000
D. C.	5,000,000	1,000,000	17,563,000
Fla.	11,375,000	6,615,000	175,490,000
Ga.	4,134,000	6,010,000	38,055,000
Ky.	367,000		11,437,000
La.	4,485,000	5,000,000	108,697,000
Md.	4,530,000	4,535,000	119,167,000
Miss.	730,000	270,000	12,500,000
Mo.	6,870,000	21,470,000	68,850,000
N. C.	2,735,000	2,110,000	58,317,000
Okla.			29,638,000
S. C.	2,076,000	330,000	24,180,000
Tenn.	2,264,000	6,820,000	42,335,000
Tex.	21,020,000	45,012,000	262,350,000
Va.	654,000	1,310,000	18,169,000
W. Va.		240,000	
TOTAL	\$71,918,800	\$104,622,000	\$1,005,750,000

PUBLIC ENGINEERING

(Dams, Drainage, Waterworks, Sewers, Etc.)

	October, 1950	Contracts to be Awarded	Contracts Awarded First Ten Months 1950
Ala.	\$1,197,000	\$3,328,000	\$40,307,000
Ark.	458,000	525,000	13,438,000
D. C.	711,000	12,437,000	1,563,000
Florida	1,873,000	2,855,000	42,647,000
Ga.	7,312,000	28,095,000	12,189,000
Ky.		610,000	8,527,000
La.	3,079,000	3,149,000	42,783,000
Md.	2,275,000	4,566,000	20,539,000
Miss.	7,903,000	2,010,000	23,459,000
Mo.	1,092,000	1,124,000	19,635,000
N. C.	722,000	2,995,000	10,709,000
Okla.	3,145,000	17,956,000	20,075,000
S. C.	859,000	9,490,000	9,307,000
Tenn.	3,300,000	780,000	26,560,000
Tex.	9,213,000	15,518,000	97,229,000
Va.	1,330,000	7,900,000	30,171,000
W. Va.			1,310,000
TOTAL	\$45,669,000	\$115,078,000	\$426,049,000

ROADS, STREETS, BRIDGES

	October, 1950	Contracts to be Awarded	Contracts Awarded First Ten Months 1950
Ala.	\$2,084,000	\$1,520,000	\$12,905,000
Ark.		120,000	12,570,000
D. C.			155,000
Fla.	1,631,000	25,900,000	31,081,000
Ga.	6,314,000		23,797,000
Ky.	2,901,000	7,820,000	34,341,000
La.	6,225,000	3,101,000	36,114,000
Md.	3,143,000	1,745,000	45,000,000
Miss.	823,000	685,000	10,218,000
Mo.	1,270,000	4,560,000	15,336,000
N. C.	2,546,000	5,615,000	50,145,000
Okla.	3,473,000	56,895,000	35,905,000
S. C.			9,783,000
Tenn.	9,180,000	60,000	32,773,000
Tex.	12,693,000	20,368,000	71,462,000
Va.	4,539,000	1,800,000	68,643,000
W. Va.	471,000	360,000	8,635,000
TOTAL	\$57,418,000	\$130,329,000	\$505,971,000

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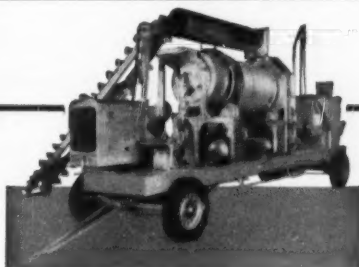
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Southern Awards Up

(Continued from page 54)

five points. The greater portion of the rise this year is attributed to increases in lumber prices and labor costs. The September index reached an all-time high of 513, which is nine points over the former peak of October 1948. The index figures are based on 100 representing 1913 costs.

The tight materials situation is emphasized in the recent survey of the Associated General Contractors of America, which said ninety-six per cent of contractors participating reported shortages of materials. Some mentioned steel, some cement and some lumber. Some items were said to be impossible to secure. At least one office building proposed in the South has been postponed because of war uncertainties.

Pipeline Crossing Under Way Across Mississippi

Work is underway on laying of a dual 12-inch pipeline across the Mississippi river four miles below Helena Crossing, Arkansas.

The line, being laid by Texas Eastern Transmission Corp., Shreveport, La., will eventually feed natural gas into Helena, Ark., and into eastern Arkansas from the firm's 26-inch pipeline in Mississippi.

A single line is being laid up to the levee on the Mississippi side from TETC's line, and a dual line is being laid across the river. Another single line will connect the dual underwater line from the Arkansas levee to Helena.

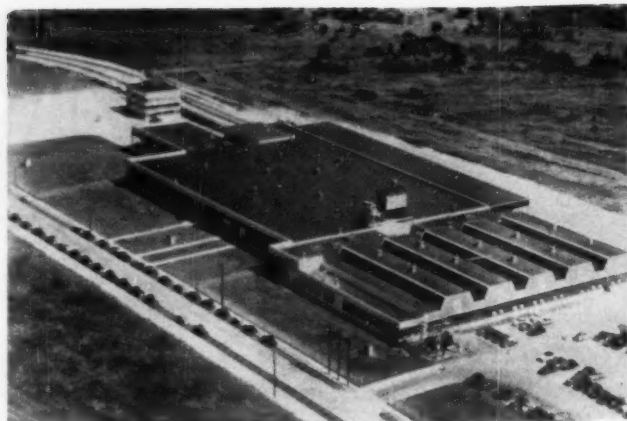
N. A. Saigh Construction Co. is doing the actual work for the Texas pipeline outfit. The line will serve the MidSouth Gas Co., which was organized recently to furnish natural gas to 44 east Arkansas communities.

Nick Saigh, of the contracting firm, has announced the line into this city will be finished by December 1 if the weather permits. Saigh Company has set up offices at Helena and has moved much heavy equipment into the area. All the work is being done from the Arkansas side of the river.

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Above—Halethorpe container plant erected by Turner Construction Co.

PUBLIC BUILDING

(City, County, State, Federal; Schools)

	October, 1955		Contracts Awarded First Ten Months 1955
	Contracts Awarded	Contracts to be Awarded	
Ala.	\$2,229,000	\$2,365,000	\$19,652,000
Ark.	37,572,000	1,275,000	46,819,000
Ariz.	2,295,000	4,150,000	9,952,000
Fla.	767,000	4,135,000	31,789,000
Ga.	3,101,000	2,865,000	35,291,000
Ky.	129,000	119,000	6,291,000
La.	3,416,000	4,350,000	40,810,000
Mo.	10,182,000	10,270,000	74,653,000
Miss.	1,807,000	11,400,000	20,316,000
Mo.	3,303,000	930,000	43,958,000
N. C.	12,935,000	5,816,000	115,915,000
Okla.	3,241,000		18,555,000
S. C.	652,000	2,270,000	21,205,000
Tenn.	6,684,000	1,560,000	35,702,000
Tex.	18,370,000	17,236,000	142,122,000
Va.	2,792,000	17,067,000	55,938,000
W. Va.	788,000	8,095,000	3,609,000
TOTAL	\$115,834,000	\$94,417,000	\$716,465,000

INDUSTRIAL

October, 1955

	October, 1955		Contracts Awarded First Ten Months 1955
	Contracts Awarded	Contracts to be Awarded	
Ala.	\$1,606,000	\$16,175,000	\$57,003,000
Ark.	200,000	1,095,000	40,195,000
Ariz.			9,000,000
Fla.	786,000	1,168,000	18,069,000
Ga.	742,000	1,675,000	10,669,000
Ky.		906,000	29,656,000
La.	3,872,000	216,000	53,955,000
Mo.	390,000	11,752,000	24,510,000
Miss.	249,000	2,700,000	45,758,000
Mo.	1,465,000	3,150,000	66,758,000
N. C.	775,000	900,000	72,624,000
Okla.		1,139,000	25,615,000
S. C.	2,092,000	1,690,000	26,429,000
Tenn.	1,175,000	8,338,000	51,048,000
Tex.	11,725,000	34,850,000	155,261,000
Va.	3,700,000	5,140,000	37,021,000
W. Va.		656,000	7,390,000
TOTAL	\$29,015,000	\$90,878,000	\$728,261,000

American Can Plant

(Continued from page 5)

facilities will substantially increase the capacity of the metal lithography department there.

American Can Company is also erecting an addition to its St. Paul plant. Costing about \$600,000, the extension will contain about 76,000 square feet of space in its one story and part basement. The Turner concern is the contractor there also.

Completed earlier this year was a multi-million dollar can plant at Milwaukee, this to require 1,000 workers and turn out cans at the rate of 2,000,000 a day for use in the food and beverage industries. The plant has almost three times the space of the new Halethorpe plant and its automatic machines will make cans at 350 a minute.

In its first full operating year, the Halethorpe plant will process more than 8,000 tons of raw materials, mostly paper-board brought in 240 cars over the Baltimore and Ohio Railroad. More than 1,300 freight cars and 1,500 large trucks will carry the finished containers on their way.

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Tractor-Dozer — Caterpillar Diesel D7, #3T289SP, w/ LaPlant-Choate, angledozer, Cat #25 CCU, crankcase guard, pull hook. Just out of our shop—a good value. FOB Louisville, **\$5,950.00**

Traxcavator—Caterpillar Diesel D4, #2T-3552W, with 1 yd. 73" bucket, street pads, 1946 model, completely gone over. FOB Louisville, **\$5,250.00**

Engine-Power Unit—G.M. Diesel, Model 3031-C, 85 HP, 212 cu. in. displ. with hyd. governor, heavy duty type clutch. Used less than 150 hours. FOB Louisville, **\$1,950.00**

Tractor-Dozer — Caterpillar Diesel D6, #5R4211, w/ LaPlant-Choate hyd. angledozer, crankcase guard, pull hook, 18" shoes. Just out of our shop. FOB Louisville, **\$6,975.00**

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- 1—Bucyrus-Erie Model 10B dragline equipped with 30' boom, 22" wide crawler shoes, 1/2 yd. Page dragline bucket and Buda gasoline engine. Good mechanical condition and appearance.
- 1—Bay City Model 20 shovel, 16" wide crawler shoes, International gasoline engine, 1/2 yd. dipper. Good mechanical condition and appearance.
- 1—Bucyrus-Erie Model 45 (2 yd.) combination dragline and clamshell, practically new, D-17,000 "Caterpillar" Diesel engine, long crawlers, 33" wide treads. Clamshell and dragline buckets optional. This is a good heavy machine and is underrated as a 2 yard size.
- 1—Cummins Diesel engine, Model HP-H2420D, 100 H.P. Used less than six (6) months. This is a skid-mounted unit complete with power take-off and clutch.
- 1—Murphy ME-4 Diesel engine, enclosed radiator to flywheel with clutch on engine and full length steel skids. This unit is strictly new and offered at a discount.
- 1—Tractor Model Bay City, 3/4 circle, 3/4 yd. shovel, equipped with International gasoline engine. In good operating condition and appearance.

Miscellaneous Items

- 1—Cedarapids Pitmaster portable gravel plant. New in February this year. In excellent appearance and condition. Equipped with roller bearing jaw and roll crusher. Reasonable price, for quick sale.
- 1—Type TS Hendrix 3/4 yd. dragline bucket. New—will sell at discount.
- 1—Type LS Hendrix 1 1/2 yd. dragline bucket. Strictly new—will sell at discount.
- 1—Gruendler Model 2XX Pulverizer. This is a small mill but in good condition.
- 1—20x33 Cedarapids Hammermill. Used 30 days and condition like new. Will sell at discount.
- 1—45" Bucket Elevator equipped with 14"x7" malleable buckets, discharge chute, automatic hold-back brake, speed reducer and chain drives, including motor mounting stand but less motor. This item is strictly new and will be sold at a generous discount.
- 1—Bucket Elevator (used), 30' centers, equipped with 5"x8" buckets, mounted on 8" wide belt, complete with countershaft but no power unit.
- 1—4'x10' Robbins double deck vibrating screen, complete with 7 1/2 H.P. GE electric motor and drives.
- 1—18 ton LaCrosse skeleton trailer with oscillating beam rear axle and equipped with twelve (12) 7:50x15" tires.
- 1—Roll (110 ft) 36" wide, 3/4" thick steel apron flights, 9" pitch, mounted on 809R chain with G2-7" side bars.
- 1—Falk speed reducer, less motor, 11:4:1 ratio, 155 R.P.M. output speed.
- 1—Wisconsin Model AHH gasoline engine with clutch.

Most of the above items are located in our yard and warehouse in St. Louis, and prices are f.o.b. present location of each item. This offering is subject to prior sale or disposition, and we suggest that arrangements for inspection of any of the machine items be made in advance of a proposed trip.

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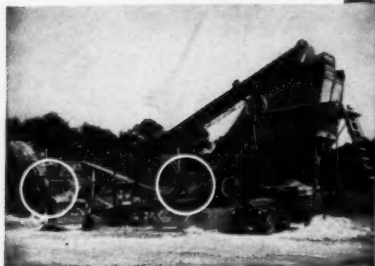
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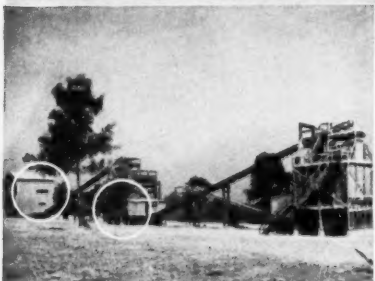


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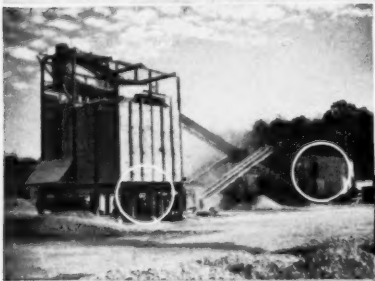
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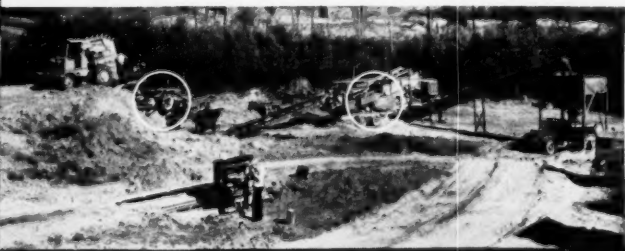
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